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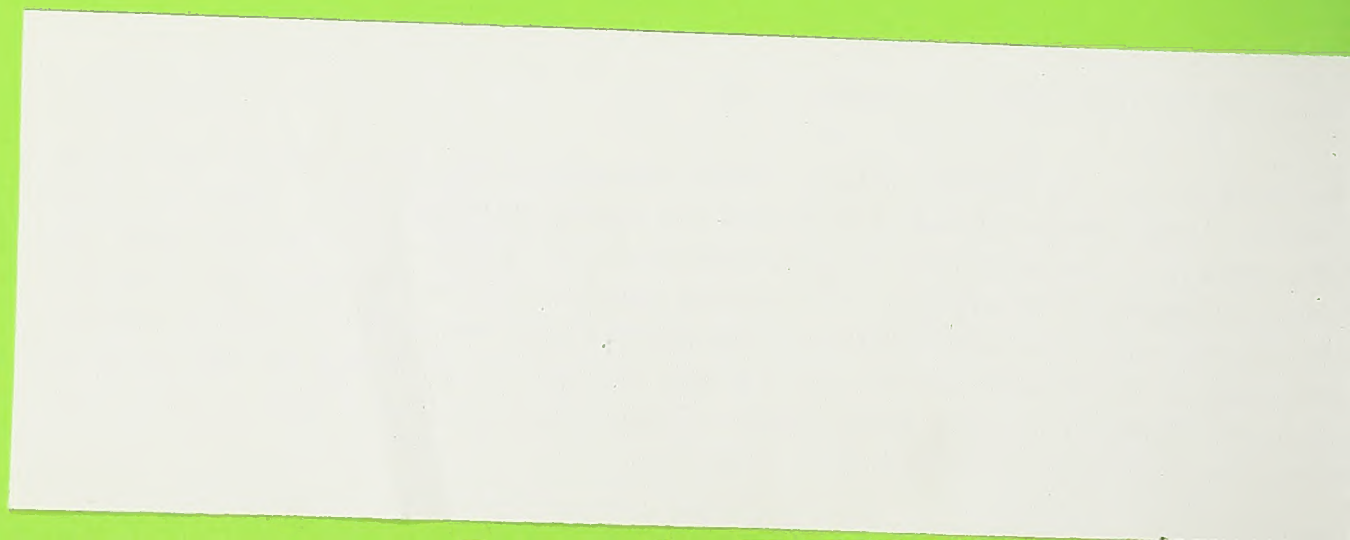


JOURNAL
2003

March 2004

EDINBURGH NATURAL HISTORY SOCIETY JOURNAL 2003

We are very fortunate to have two 'resident' artists - Jackie Muscott and Eric Perry - whose work add so much to the Journal. Jackie always enhances her articles and reports with illustrations, which are much appreciated. We should have said more about Eric contributions to the Journals of the last few years. He does not sign them and somehow in the rush to put the Journal together, we always forget to put in the EPs. This year all the drawings which are not Jackie's (those with JM) have been drawn by Eric. These include the copy of the photograph of Siccar Point and the geological ones for that article, on Page 53, the Tea Party on the Perry's lawn, the Pentlands inquisitive sheep, and the Cromarty Bats, all of which make us smile!. They are so detailed and beautifully done. Thank you Eric. Eds.

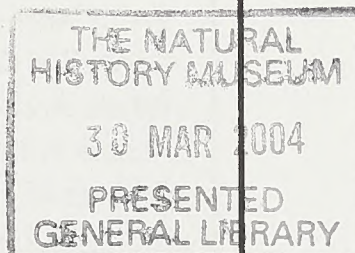


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at January 2004



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The Edinburgh Natural History Society was originally founded in 1869 and incorporates the Edinburgh Field Naturalists and Microscopical Society, instituted in 1881. The Society was instituted for the study of natural history in all its branches, and for the encouragement of public interest and concern in these matters.

Indoor talks are held on the 3rd Wednesday of the month, from September to April, in the Guide Hall, 33 Melville Street at 7.30pm. All are welcome. Outings are held throughout the year (see Page 26). A copy of the programme for Summer 2004, and details of membership of the Society can be obtained from the Secretary.



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PRESIDENT'S COMMENTS

Our Journal this year as always reflects the wide variety of activities in which the Society participates. For a small society there is a high rate of participation by individual members which is reflected in the number of people who contribute to the Journal. Our excursions would not happen without an enormous amount of background preparation. There are too many people to mention individually by name, but the excursion committee has put a lot of work into both researching the 29 day excursions and 10 Wednesday evening ones, and preparing for the longer excursions to the Black Isle and Islay. The trip to the Black Isle for example involved several advance visits to check the accommodation, botany, birds and geology. A 'thank you' is also due to the many individuals who suggested sites and possible walks. We are fortunate to have such a willing team who can spend time in this way to the benefit of the Society.

We have had a change of office bearers and have to thank Jackie Muscott for looking after our finances for so long and Michael Osborne who has been secretary. Sadly, we were all very sorry to hear of the death of our librarian, Joyce Marks. We send our sympathy to Robin and his family and are especially grateful to Robin for continuing the library organisation. Ena Gillespie also deserves special thanks for her work in preparing a library catalogue, so that we can ask for books to be brought to meetings. Finally of course, our thanks again to the editors of this Journal and to all the contributors.

OBITUARIES

MARGARET BELL

Older members of the Society will remember Margaret who died on 24th December 2003. Margaret worked as a medical librarian at Edinburgh University and was introduced to the NATS more than 50 years ago by Miss Charlton, a member who was in the same profession. Although she could not get about much in recent years, she was a keen bird watcher and took part in outings when she was able. Some of these outings, we are told, involved visits with her friends to the Dell Hotel near Aviemore.

JOYCE MARKS

Joyce died in November after a period of ill health. She will be sadly missed by the Society as in recent years she in conjunction with her husband Robin had looked after our library. She was heavily involved at the time when our books were being moved to St Ninian's Church Hall and a decision was taken to reduce our stock. Joyce's main natural history interest was in ornithology and she belonged to a small, very active bird club.

Amongst her other interests music was dominant and she played the double bass in two orchestras.

JOHN YOUNG

John Young died in Torquay on 23rd December, 2003. By the time he left Edinburgh in 1997 he had been a member of the Society for some 30 years. He was a gentle, kindly man, always considerate and friendly, a tireless walker who enjoyed exploring the countryside and observing its wildlife. He was particularly knowledgeable on birds, small mammals and trees. He attended many Nats outings and led some himself. People may remember him arriving at meeting places in a distinctive manner on his motorbike.

BIOLOGICAL EVENTS in an EAST LOTHIAN GARDEN
EVIDENCE of PROGRESSIVE CHANGES in DATES of FIRST FLOWERING

Fred Last and Desmond Patterson



A note in *Journal 2000* of the *Edinburgh Natural History Society* published in Spring 2001 gave a very preliminary insight into the flowering behaviour, between 1978 and 2001 inclusive, of a collection of plants growing in an East Lothian private garden. Observations had been taken at weekly intervals on 800 to 1100 different species and cultivars, overwhelmingly biennials or perennials; more than a million records have been amassed. Although similar records, but of varying frequency and duration, had been made by others, starting in 1768 with Gilbert White of Selborne, Hants. fame, and including the Marsham and Fitter families, none had highlighted in stark terms, the different start-dates of flowering in mild (early) and severe (late) winters.

The note published in 2001 indicated that dates of first flowering in early and late years commonly differed by 10 - 15 weeks, and it was thought that variations of this magnitude would preclude the identification of modest trends to earliness (or lateness) that might be attributed to progressive changes of climate associated with the release of greenhouse gases, including carbon dioxide, oxides of nitrogen, ozone, methane and chlorofluorocarbons. In the event, and contrary to expectation, further, but still preliminary, analyses have identified statistically significant trends to earliness between January and April among temperature-responsive species/cultivars.

By pooling observations of species that start to flower in January and February, and relating the data to mean monthly maximum air temperatures, it was found that the maximum temperatures in both months (Jan. and Feb.) had profound effects on the first dates of flowering (Table 1).

When the same analyses were made with species/cultivars that start to flower in April, it was again found that January and February temperatures had profound effects, as did March temperatures. As the seasons progressed, the impacts of January and February temperatures were sustained. Thus the onset of flowering of species/cultivars which start to flower (* see footnote) between April and November was still strongly influenced by January, February and March temperatures, but not by those nearer the date of flowering, in June, July and August. Thus in 1989, with exceptionally warm temperatures in January and February (4 C above average) plants, irrespective of their first dates of flowering, tended to flower early, whereas in 1996, a late year, most plants were late to start flowering (Fig.1).

These observations seem to suggest, somewhat unexpectedly, that the annual patterns (Jan.- Nov.) of flowering are dominated in East Lothian by temperatures in January, February and March, while summer temperatures are of relatively minor importance, although they may influence the *profusion* of flowering.

TABLE 1 shows the correlations between monthly mean first flowering dates and monthly maximum air temperatures
[Significant correlations ($p < 0.05$) in bold]

Covariate	Month of first flowering						
	Jan-Feb	March	April	May	June	July	Aug-Nov
January Temperature	0.81	0.82	0.75	0.64	0.53	0.62	0.62
February Temperature	0.71	0.79	0.80	0.78	0.70	0.59	0.60
March Temperature		0.73	0.77	0.78	0.67	0.70	0.72
April Temperature			0.14	0.23	0.43	0.10	0.05
May Temperature				0.46	0.52	0.59	0.62
June Temperature					0.05	0.28	0.22
July Temperature						0.08	0.24
August Temperature							0.14

* A plant is considered to have started flowering when its stamens/stigma can be seen without the observer having to separate the petals.

FIGURE 1 shows FIRST FLOWERING DATES, 1978-2001, averaged, for groups of plants that start to flower at different times of year

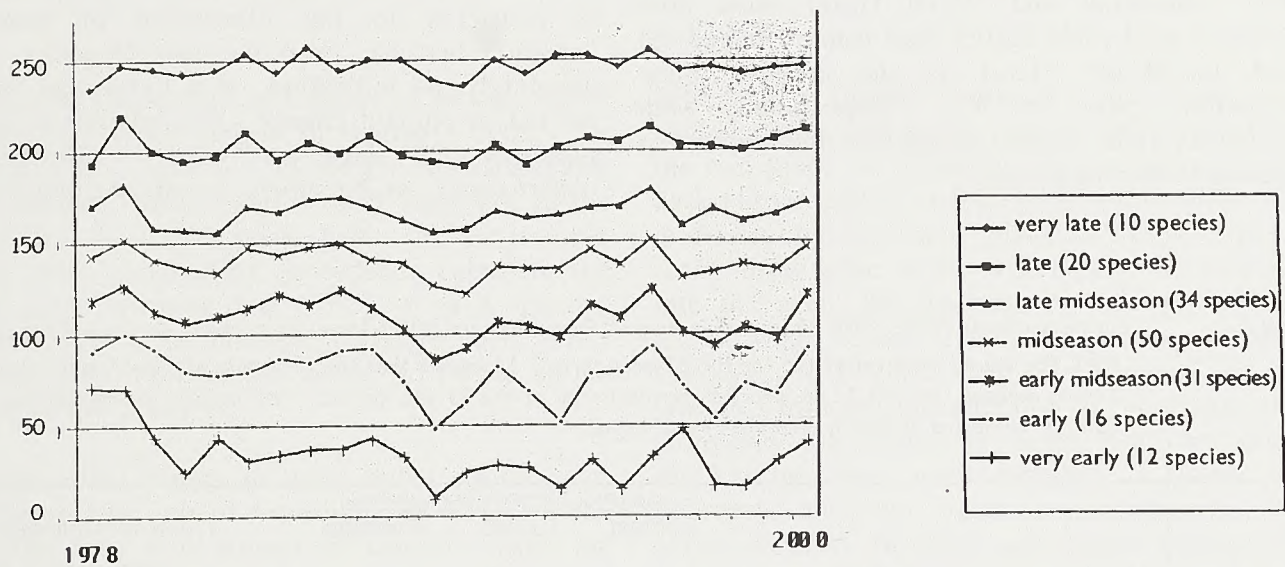
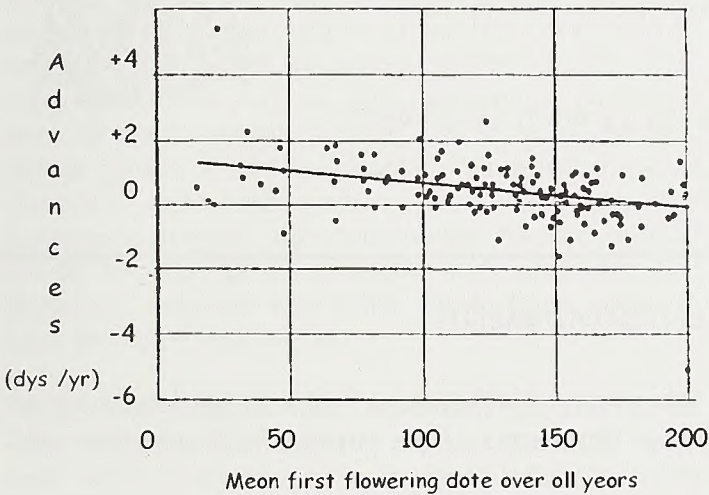


FIGURE 2 Advances (+) or delays (-) days per year, in the first flowering dates of 156 species, 1978 - 2001

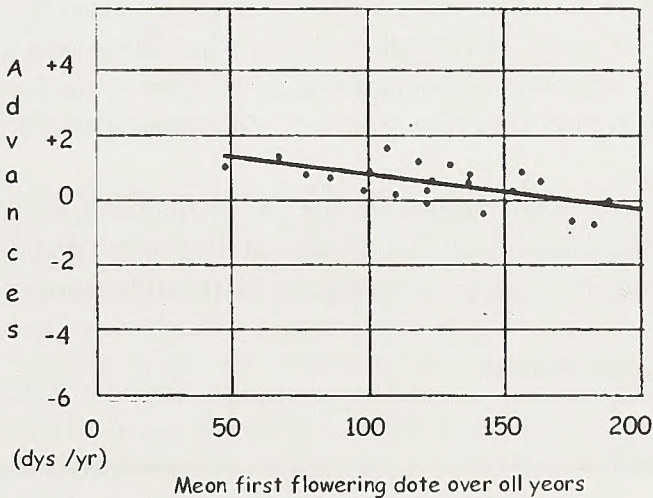


For a sample of more than 150 species/cultivars, it was decided, despite the extensive differences from year to year, to check whether it were possible to identify a trend towards earliness or lateness. The exercise (line fitting) concluded that on average the first dates of flowering of plants with mean first dates of 19th Feb. (day 50), 10th April (day 100) and 30th May (day 150) have advanced between 1978 and 2001 by 1.1, 0.7 and 0.3 days (Fig. 2 above) for each of the 23 years i.e. by 25, 16 and 7 days respectively. A virtually identical trend was found when the analysis was restricted to 24 British native species (planted in the private garden in question) (Fig. 3 opposite).

In summary, the flowering of many, but not all spring plants has advanced over the last quarter of a century, but before jumping to conclusions, it is prudent to remember that a period of 23 years is a relatively short time in relation to the duration of the 'natural' cycles of changing weather. Nonetheless, the role of climate change, induced by the activities of man, is hardly in dispute.

These rapid rates of change may have many undesirable consequences e.g. a difficulty in seed set if changes in the behaviour of pollinators do not follow changes in flowering, or a change in the balance of vegetative and reproductive growth at the expense of the former. Will this happen before biological factors preclude further advances in earliness of flowering? Will the first flowering of plants that start to flower at the present time on day 50 be advanced by a further 25, 50 and 75 days in the next 23, 46 and 69 years? We suggest that these advances are likely to prove biologically unsustainable, but how will plants attempt to protect themselves from the damaging effects of climate change?

FIGURE 3 Advances (+) or delays (-) days per year, in the first flowering dates of 24 British native species, 1978-2001



For those of our readers interested in the interpretation of flowering records we would like to highlight one of the pitfalls (Table 2). This year (2004) Snowdrops and Witch Hazel have both flowered considerably earlier than usual; indeed the record for Witch Hazel is the earliest since observations started in 1978. Superficially, both these observations suggest support for the notion that flowering is starting earlier.

This would be correct for Snowdrop with a trend to earliness of 1.1 day for each of the last 23 years, but for Witch Hazel the significance of the observation is restricted to the illustration of year-to-year variation because, over the last 23 years, there is absolutely no indication of a trend that might be related to climate change - the calculated trend was precisely 0.0 days per year. Beware, spot observations can be subject to misinterpretation!

TABLE 2 Summary details (1978-2001) of first flowering of Snowdrops and Witch Hazel in a private garden in East Lothian
NB. The trends were calculated for the 23-year period: 1.1 implies that the first date of flowering of Snowdrops has, on average, become 1.1 days earlier for each year of the 23-year period: 0.0 implies that the average first date of flowering of Witch Hazel has not changed.

	DATES of FIRST FLOWERING			Trend to earliness days/year
	Earliest	Latest	Average	
<i>Galanthus nivalis</i> Snowdrop	9 Jan	12 Mar	31 Jan	1.1
<i>Hamaemellis X intermedia</i> Witch Hazel	2 Jan	17 Feb	21 Jan	0.0

N.B. This note builds on -
Roberts, A.M.I., Last, F.T. and Kempton, E. (2003). *Preliminary analyses of changes in the first flowering of plants, shrubs and trees.*
Scottish Natural Heritage Commissioned Report FOINA04



The help of Scottish Natural Heritage and in particular Dr Noranne Ellis is gratefully acknowledged.

JEAN MURRAY'S ENTERTAINMENT!

I could hardly believe my eyes! There on my bird table was a Nuthatch. That was the beginning of November and it has stayed with me, reappearing within 10 minutes of me putting food out after a 10 day absence over Christmas.

My bird table is only about 6 feet from my kitchen window, so I have a really good view. It definitely prefers suety, fatty things and seldom goes to the peanuts. Like Coal Tits, it takes its food away, sometimes to a mature Lime tree, where it likes to push its beakfuls into lichen-covered areas of bark. It doesn't like any sudden movement when I'm watching through the window, so I can't get a photograph, but my Grey Squirrel chasing doesn't keep it away for long.

I've also had more visits from Long-tailed Tits than usual. One day I had just finished refilling a container with small fat balls when there was a rustling in the bush and a party of about ten arrived. I was wearing varying shades of green, so I don't think they really saw me. Not daring to move, I watched for a few minutes. One came within 6 inches of me, so that I could see every detail.

On another memorable day, all at the same time, the Nuthatch was on the bird table, the Long-tailed Tits on the fat container, and a Treecreeper on the Lime tree. Was the Treecreeper stealing the Nuthatch's stores?

Jean Murray



PHENOLOGY AT THE BOTANICS

Geoffrey Harper

This may be the second of a series of articles about the project, which began in January 2002. The intention is not, however, to present systematically all the annual observations - or at least not in the early years. It would seem better to accumulate several years' results first, in order to calculate the average first-flowering date (FFD) of each species. Only then will it be possible to judge each year's observations in terms of the 'norm'. So far we do not know what the 'norm' is.

There are other things to write about. Quite apart from the routine job of recording the FFDs of the plants, the daily walk around the Garden creates the opportunity to make other observations, or quite simply to enjoy nature without having to write anything down. On several occasions I have had very close views of a Sparrowhawk, without the need for binoculars, and on 8th April 2003 a Wood Mouse *Apodemus sylvaticus* was watched for several minutes at the bottom of the Chinese Hillside, allowing me to approach so close that I was able to touch it. How's that for preoccupation! Bullfinches, Long-tailed Tits and on one occasion a Goldcrest have hopped around, feeding in trees or bushes, almost within touching distance. It reminded me of Darwin's experience when he landed on the Galapagos Islands: the eponymous finches hopped around his feet, on his shoulders and on his hat. The Botanics' squirrels and some of its birds seem to have the same lack of fear.

Well, such delights have absolutely nothing to do with recording FFDs, but it pays to have the same open-mindedness and wide range of interests, when it comes to recording flowering. Two casual observations immediately come to mind. They concern the possible effects of shading by trees, or by the monitored plant's own foliage and branches.

Woodland shading

In both 2002 and 2003, the Lesser Celandine *Ranunculus ficaria* we monitor in the Garden has presented an interesting pattern. Unfortunately our material is rather limited, comprising a couple of patches of the wild species in woodland (at the west end of the Demonstration Garden), and a patch of the cultivar 'Brazen Hussy' in the open. The FFDs of the latter have so far been 15.ii.02 / Day 46 and 6.ii.03 / Day 37, while those of the woodland patches were 3.iv.02 / 93 and 27.iii.03 / 86. (By the way, the '46', '37', &c are the Julian dates, i.e. the day in the year, counting from 1st January.) The average Julian date of 'Brazen Hussy' is 41.5, and that of the woodland plants 89.5 - a difference of 48 days.

With such limited material, the most obvious explanation would be the genetic difference between the two kinds of Celandine. 'Brazen Hussy', with its dark purple leaves - which look almost black to me - is clearly not the same plant as the wild type. We really need some of the wild type to be transplanted into the open, but the next best thing would be to check what Lesser Celandine growing outside the Garden does. In 2002, Cathy Bell - one of the Garden Guides - directed my attention to the plants growing alongside the Water of Leith near her home in Stockbridge: they were certainly in flower in mid February, and they again coincided with 'Brazen Hussy' in 2003. In 2004, wild Lesser Celandine was in flower on 10th January by the Water of Leith at Bridge Place / St Bernard's Row, but at the time of writing (late January) no flowers have appeared at the Botanics.



LESSER CELANDINE

I should be interested to know if any readers have noticed differences in flowering times in Lesser Celandine in relation to its habitat. If there is a significant difference between woodland and open habitats, the question is, why? There could be several answers. If it is a matter of temperature, the woodland plants may be cooler, because they are shaded from sunlight; or on the other hand they might be warmer, because they are often protected from frost. If light is the cause, it could be that the woodland plants receive less light, being shaded, or instead receive a different kind of light, since the quality of light in woodland is different (e.g. greener) than light coming directly from the sky. In the case of the plants beside the river, are they benefiting from moister soil?

To be really useful, observations need to be made at sites that are visited regularly, for instance daily, or at least weekly. Only then can you be reasonably sure that plants are flowering on a given date and were not in flower on your previous visit. In my case, I usually walk on Saturday afternoons along the Water of Leith from Canonmills to Belford Road, and I keep an eye on the Lesser Celandine growing in the open and also plants along the Rocheid Path,

where they are under shade. Certainly the shaded ones flowered much later in 2003 than the open-grown ones.

It would also be useful to compile a list of other species showing the same kind of behaviour. If any members could help with that, I'd be grateful. And, are there any species showing the reverse pattern - flowering earlier in woodland than in the open?

Self-shading

In the week leading up to 12th April 2003, I was struck by how warm it was in the sun - and the sun seemed to be out nearly all the daylight hours. At the same time it was damned chilly out of the sun. At that time there was quite a long period in which we suffered from a cold air stream.

It occurred to me that, if I'm feeling warmer than the air temperature when the sun is on me, presumably the same applies to buds. (Well, maybe they don't *feel* warmer, but you know what I mean.) So we might expect warm buds to flower earlier than cool buds, if higher temperatures help speed up development. Flowering might start earlier on the south side of a tree than on the north side. If the effect can be demonstrated, we might be able to improve the correlation of FFD with weather if the number of hours of sunshine per day is taken into account, as well as the air temperatures. At the Botanics, sunshine hours are measured at the top of the Palm House, at the south-west corner; you can see the instrument as you walk past below.

So in 2003 I tried noting which of our monitored plants were clearly flowering earlier on the sunny side of the plant. Some may have been missed, since it was only in early April that I thought of making the observations.

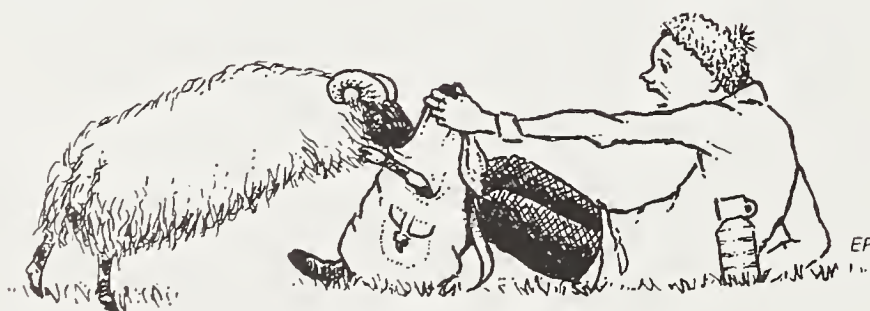
The first example to be noted was an apple - Siberian Crab *Malus baccata* 'Hiemalis', on the south border of the Garden, and best seen from Inverleith Terrace.

Binoculars are needed to monitor it accurately, but fortunately the flowers are large and observations can be made adequately. It first flowered on 13.iv.02 / 103 and 10.iv.03 / 100, but in 2003 it did not flower on the north side until 14th April.

Similarly our large Wild Pear tree *Pyrus communis* first flowered on the south side on 12.iv.02 / 102 and 5.iv.03 / 95; on 12th April 2003 it was a mass of flowers on the south side, while less than ten were open on the north side. The Manchurian Crab *M. baccata mandshurica* near the Main Pond flowered on the south side on 19th April 2003, and on the north side only on 27th. A *Malus kansuensis* flowered on its south and north sides on 19th and 28th April 2003 respectively.

It would be interesting to know of other species which show the same behaviour. Ideally, the date of the first flower on the sunny side - assuming it is exposed to sun for a good part of the day - should be recorded, and also the date of first flowering on the shaded side. This would require daily monitoring, which of course would generally be easiest in one's own garden. But any observation of a tree or bush which clearly flowers earlier on the sun-exposed side will be useful. Equally, any plant showing the opposite behaviour - flowering first on the shaded side - would be of exceptional interest.

The value of any such observations are enhanced if they can be kept up for several years, to rule out the possibility of chance in any one year. It is also possible that earlier flowering on the sun-exposed side will happen only in some years - and in particular in a year like 2003, when there was a prolonged period of cold air and plenty of warm sunshine. Records of several years like that, combined with the meteorological records, could help pinpoint at what stage of bud development warmth has a marked effect.



OH I DO LIKE IT WHEN THE NATS VISIT. WHAT'S IN THE SANDWICHES TODAY?

BENBECULA AND THE UISTS IN JUNE

Douglas Peacock

These days a couple of continental holidays a year seem to be almost standard for many people, but it is easy to forget that Britain, especially Scotland, has its own delights for those prepared to eschew cheap, polluting air flights and endless burning sunshine. I had last visited Benbecula and the Uists in 1977 when I was involved in a small part of a geological survey, so I was delighted when Jane and I arranged to share a cottage in Benbecula with friends for a week in June, 2003. It is possible to drive to Benbecula from Edinburgh in a very long day, but we preferred to break the journey, and spent a night at a B & B in Portree, run by the noted Gaelic singer, Arthur Cormack. We had been told that he would sing for us, but unfortunately he was away 'on tour'. However, on enquiry, we learned that the 'tour' included a concert with his group *Cliar* on Benbecula a few days later, at just the right time to round off our holiday.

The drive from the ferry terminal at Lochboisdale took us swiftly south across North Uist along a newly reconstructed road to the Benbecula causeway, and then to our cottage. Most of the roads are single track, but a few sections of the main north to south road through the Uists are now dual carriageway ('dualled' in the jargon). However, in the absence of heavy tourist traffic it is rare to be held up for long and, in any case, what does it matter on holiday (except when getting the ferry home!).

Geologically, the Uists and Benbecula are formed of ancient hard gneiss (the Lewisian Gneiss), with subordinate rock types such as granite and metamorphosed basaltic-like intrusions. These are well seen in road cuttings. On the west side of the islands there are long stretches of sandy beach, flanked inland by a narrow belt of dunes; and then by the flat-lying machair, land fertilised by the mixing of lime-rich blown sand with lake silts and peat. Much of the housing for the crofts is east of the machair, but west of the main road, among low rocky mounds interspersed with peat, lochans and marsh. The east side of the islands is hilly, with extensive boggy areas. On South Uist the chain of higher hills rises locally a little above the 600 metre level, culminating in Beinn Mhor.

We encountered what might be described as typical June island weather, plenty of wind, showers and sunny intervals. The machair is a joy to visit in any but the worst conditions, with the light reflected from the sandy soil and its carpet of Daisies, Buttercups, Lady's Bedstraw, Eyebright and Lesser Meadow Rue. In places it is difficult to avoid trampling on Orchids, especially the common Early Marsh Orchid.



In windy weather the birds keep a low profile. On one almost windless sunny day, however, when we walked on the machair, the air was full of song, with Larks overhead, and flocks of Starlings, Lapwings, Redshank, Jack Snipe and Ringed Plover. No doubt a twitcher would have seen many more species! We heard, but did not see, the Corncrakes that nest in the higher vegetation of the marshy ground inland from the machair.

For less pleasant days, we found plenty of archaeological interest on the islands, from Viking settlements currently being excavated, to chambered cairns and round houses of an earlier age. Because of wind and rain, our forays to see Otters in the sea lochs were less successful (only heads in the water seen through binoculars). However, unlike 1977, there are now museums, strategically located cafes which serve good light lunches (ideal for drying out), and craft shops to help you spend your money!

On one fair but windy and cloudy day, with hints of sunshine, we climbed Beinn Mhor from the south. The route lies initially eastward across wet, peaty moor to the base of the ridge. From here there is a stiff ascent up a boggy, 30 degree slope to a col, followed by another climb northwards up the ridge. On crossing the moor we heard the distant call of Golden Plovers, but near the cairn just south of the summit we encountered one of these beautiful birds at close quarters, looming through the fog. It seemed reluctant to give way, and was still close by when we descended. Beinn Mhor and the second highest peak located just to the north, Hecla, are reputed to have stood above the Hebridean ice-sheet of the last glaciation, but the weather forced us to turn back before seeing the critical evidence.

Incidentally, the volcano Hecla in Iceland may have got its name from the Hecla on South Uist! Many of the early Viking settlers in Iceland came from the Outer Hebrides, and were probably guided by monks who knew the sea route.

OTTERS AT THE HIRSEL

A small group of RSPB members from the North Berwick area had a very good outing to The Hirsell estate at Coldstream on 19th November. It was a calm, sunny day and the late autumn landscapes of the Borders were a pleasure to drive through.

The first halt on our walk was at the hide overlooking the lake, where we watched Goosander, Heron, Teal, and Little Grebe in addition to the numerous Mallard and Swan, before noticing that two dark shapes appearing and disappearing in the water were those of a pair of Otters playing. We were able to watch them for several minutes before they finally vanished; for some of our group this was their first sighting of Otters in the U.K.

After a good walk and a late lunch, with light already dimming, it was suggested that instead of a further walk we could return to the hide, where we had seen more birds than elsewhere in the estate. Within a few minutes of our settling in the hide, an Otter appeared in the lake, but this time not playing but purposefully hunting. It was fascinating to be able to follow his/her every move by the silvery streak left on the surface of the water when he dived. We watched as he caught two fish, then a flurry of action was followed by his surfacing with a writhing Eel. A few more dives, and the Eel was overcome, but that was apparently the climax of the hunting session, since the Otter then made for the far side of the lake and vanished into the reed-beds.

Our necks were stiff from having our binoculars glued to our eyes for 15 to 20 minutes, and we hadn't seen any rarities in birds, but it was a memorable day.

Margaret Watson



HOPETOUN'S MORINDA SPRUCE

Picea smithiana

Mary Robertson

On 11th February 2003 I was taken by the young ranger to identify a large conifer which had recently fallen in the Walled Garden at Hopetoun House. I was dismayed to see that it was one of the Morinda Spruces *Picea smithiana*, the one with its distinctive grafting scar.

The Norway Spruce rootstock had rotted, though the Morinda graft was sound. Its two ungrafted companions still stand and appear to be healthy. Three grafted trees grow in the South Wood of the parkland, west of the House.

Picea smithiana is special to Hopetoun. Seeds were sent to the Earl of Hopetoun in 1818 and grown by Mr. James Smith, Head Gardener for so many fruitful years.

He sent one tree to the Royal Horticultural Society and three to the Edinburgh Botanic Garden. To increase their number at Hopetoun, he grafted it upon the Norway Spruce *Picea abies* in 1826, on which some did fairly well. Dr. Nathaniel Wallich (1786 - 1854) named the species 'Smithiana' after the raiser.

This information comes from the Journal of the Royal Horticultural Society of 1891, which also reports that the seed was sent by Dr. George Govan (1787 - 1865) of Cupar, Fife in 1818. It was written by the Head Gardener of Hopetoun at the time, by coincidence with the same name as his predecessor, but no relation. Dr. Govan was a medical man and herbalist who went to India in 1815 as a surgeon, but became the first superintendent of the Botanic Garden at Saharanpur (1819 - 21). He was a correspondent of Dr. Wallich and became the first plant collector to penetrate the Sabutha Hills near Simla.

There is some confusion, both about the origin of the seeds and the naming of this species of 'Weeping Fir' as the tree was originally known. It is thought by some that they were gifted by Sir James Edward Smith (1759 - 1828), the first President of the Linnean Society. From where did he get the seeds, one wonders? And where were they grown? It is also thought that the Morinda Spruce was named after Sir James Edward Smith.

At Hopetoun we beg to differ!

MR. JAMES SMITH, HEAD GARDENER
HOPETOUN HOUSE

Mary Robertson

James Smith first came to work for the Hope Family in the 1790s at Ormiston Hall, East Lothian, and he was promoted to the charge of the gardens there, succeeding his father-in-law, until removed to the larger gardens at Hopetoun House, West Lothian, where he worked until his death on 10th February 1850. Here was a man who must have run the gardens for the 3rd, 4th and 5th Earls of Hopetoun, and was given great liberty in the design and the provisioning of glass houses, fruit plots and flower and shrub borders. He won many awards for his fruit-growing, especially pears. He was so well thought of that East Gardens House was specially built for him in 1825 by his employers.

Mr. Smith was obviously a man of considerable and varied talents, in many respects self-educated and literate. He corresponded with John Claudius Loudon, editor of the *Gardeners' Chronicle*, published in London and to it he submitted several articles. He was one of the first professional men in Scotland to be admitted as a Fellow of the Horticultural Society of London.

The obituary notice in the *Gardeners Chronicle* 1850 states that "he was a fair botanist and had a general knowledge of plants both native and exotic. He was extremely fond of calculation.... a zealous elder of the Church of Scotland. Gifted with remarkable cheerfulness and kindliness of disposition, he was greatly beloved....especially by the numerous young men who were trained under his care. He became a member of the Caledonian Horticultural Society in 1809. He was engaged in business until a few hours before his unexpected death."

One of the most prominent stones standing in the centre of Abercorn graveyard is a massive block, on top of a little knove overlooking the rest of the gravestones and the east end of the church. It was erected to the memory of James Smith, and reads:

IN MEMORY
OF
MR. JAMES SMITH
GARDENER AT HOPETOUN HOUSE
DIED 10TH FEBRUARY 1850
IN THE 74TH YEAR OF HIS AGE
AND THE 60TH OF HIS SERVICE
UNDER
THE EARLS OF HOPETOUN

REFERENCES

1. The Gardens of Hopetoun, Hopetoun Research Group Studies 1995.
2. Dictionary of English and Irish Botanists and Horticulturalists, published by Taylor and Francis Group. Editor: Roy Desmond.
3. Journal of the Royal Horticultural Society (Statistics of Conifers in Scotland 1891 Report).

WHOSE GARDEN?

Elizabeth Farquharson

In mid September, while I was away for several days, there had been some very strong winds which had brought down many of the Crab Apples. Armed with basket and walking stick I set to to gather them all and clear the grass. Within minutes a Grey Squirrel came to join me and squatted down within three feet of me. He showed no fear whatsoever and started eating his first Crab Apple. It was fascinating to watch him at such close quarters, manipulating the Crab Apple with his front paws. I timed him and he took about five minutes to eat the whole fruit. He finished every shred, skin, stalk and pips, before moving on to the next fruit.

As he was sitting on the spot where I wanted to collect I prodded him with my stick. Instead of moving he turned to face me, fur on end, a little bundle of fury, and for a moment I thought he was going to climb up my stick. Tempers cooled and we each carried on as before until I was tempted to try prodding him again. Once more a furious reaction, but no fear, and no intention of moving away.

My impression was that during my absence on holiday the Squirrel had come to look upon the lawn and the crop of Crab Apples as his territory, and that he looked upon me as the invader.

FORTH ISLANDS SEABIRD COUNTS 2003



Each year there are a number of groups who visit the various islands in the Firth of Forth. For some islands all that is required is for someone to make a quick count from a boat. For most of the larger islands a small group lands for a few hours, either to count all the seabirds or to ring the targeted species. On the May Isle there is extensive monitoring during the whole breeding season. For 2003, the Forth Seabird Group's report lists 33 people who have contributed to the year's work and it is quite likely that there are others not listed.

The weather definitely has an effect on the count figures. Last year the weather was not kind to us and it took several attempts before we were able to count some of the islands. It is very difficult to spot birds nesting on a cliff when the boat is being tossed around and the rain is driving past. This year the weather was very much better, so the quality of the figures is much better. For a number of species, I am sure this explains some of the differences between last year and this year. The birds also noticed the difference and the Isle of May recorded most species having a better than average rate of chicks being fledged.

Fulmar: Numbers are down by 120 from last year, with the greatest losses being on Inchkeith and May Isle (27%). However the number counted on Bass Rock jumped from 33 last year to 119 this year, although this year's total is still a long way short of the 1997 peak of 2045 sites.

Cormorant: This year's figure of 378 nests shows a return to the numbers counted two years ago (372), although this is well down on the 1991 total of 511.

Shag: Numbers are continuing to rise from the low point of 618 nests in 1999. Inchkeith showed an increase to 139 nests, from 78 last year. St Abb's Head National Nature Reserve showed an increase of 23% while the Isle of May reported an increase of 43% on last year.

Eider: These were not counted on all islands but there appears to be a general increase. The largest colony, on the Isle of May, increased by a third.

Kittiwake: There has been a slight fall since last year and this year's total of 5453 is still only about half of the 11229 recorded in 1997. St Abb's Head NNR recorded a 25% decrease on last year giving their lowest level for over 40 years. However they reported productivity at 0.97 young fledged per AON (apparently occupied nest) which is well above their average. The Isle of May reported that the decline continues there – a decrease of 9% on last year.

Common Tern: This species has increased to 221 nests this year, compared to the low of 69 last year.

Arctic Tern: Good news here too, with the number of nests doubling to 577. There is still some way to go to get back to the 916 nests of 2001.

Roseate Tern: The numbers are up to eight pairs this year, from two pairs last year. Twelve eggs were laid and ten young were hatched. All of these were fledged. This is the best count since the 12-13 pairs in 2000.

Sandwich Tern: Last year there were no birds breeding in the Firth of Forth, so it was good to record 58 nests this year.

Razorbill: Overall, numbers are very similar to last year.

Guillemot: This species has had a good year with an increase of nearly 11% in the numbers of birds counted on the cliffs. On the Isle of May an increase of 10% in the total number of birds was noted, but a decrease of 3% in the number of pairs. At St Abb's Head NNR the number of birds has increased and is now very close to the 1998 count.

Puffin: This species was not counted on all islands. As they nest in burrows, it is difficult to get a realistic count of Puffin numbers. To try to get an estimate, SNH carried out a survey in April to count the number of occupied burrows. On Craighleith they got an estimate of 12,100 and on Isle of May 69,300. In May a survey of Fidra found 1466 occupied burrows.

SUMMARY of SEA BIRD COUNTS for the FORTH ISLANDS 2003

	Bass	Craigleith	Lamb	Fidra	Eye br'ty	Inch keith	Carr Craig	Inch colm	Haystk	Inch Mick	Inch Garvie	Long Craig	May	Total
											FRB			
Fulmar (AOS)	119	168	9	194	0	321	0	206	0	35	205	0	248	1505
Cormorant (nests)	0	72	95	0	0	124	87	0	0	0	0	0	0	378
Shag (nests)	24	197	124	254	0	139	9	4	5	70	0	0	968	1794
Gannet (nests)	x	0	0	0	0	0	0	0	0	0	0	0	0	x
Eider (nests)	x	x	0	68	8	x	0	250	0	197	48	7	1262	1840
Great B-b Gull (nests)	1	9	0	1	0	1	0	0	1	1	0	0	23	37
Lesser B-b Gull (nests)	x	x	0	300	0	x	3	x	2	135	14	0	1253	1707
Herring Gull (nests)	> 50	x	32	900	0	x	46	x	17	413	254	0	2559	4271
Kittiwake (nests)	910	450	124	273	0	304	0	57	0	0	0	0	3335	5453
Common Tern (nests)	0	0	0	0	0	0	0	0	0	0	4	157	60	221
Arctic Tern (nests)	0	0	0	0	0	0	0	0	0	0	0	0	577	577
Roseate Tern (nests)														8
Sandwich Tern (nests)	0	0	0	0	0	0	0	0	0	0	0	0	58	58
Razorbill(Pairs/sites)	89	163	112	88	0	58	0	9+	0	0	0	0	3105 brd	3624
Guillemot(Brds on cliff)	2820	2119	1987	595	0	35	0	1	0	0	0	0	26722	34279
Puffin (as stated)	x	12,100 ob	25	1466	0	927	0	x	0	9 i/a	0	0	69300	82,866 ob
			i/a	ob		i/s				4 i/s			ob	965 ind

ob=occupied burrows: i/a=individuals ashore: i/s=individuals on land and sea; ind=individuals:FRB=Forth Rail Bridge

x=present but not counted: 0=none breeding: +=incomplete total

The following information from the studies on Isle of May provides an interesting comparison of the different species. As the birds only come ashore to breed, this helps to illustrate how short a time there is to get a count of all the species nesting on each island in a single visit. We need to wait a reasonable time after the last species has started to lay (ie Fulmar on 19 May), to allow the majority of that species to lay their eggs. At the same time we need to count before the first species starts to fledge (ie Guillemot on 13 June) as the adults will then be starting to leave.

Species	First egg	First chick	First fledge
Shag	23 March	26 April	
Guillemot	20 April	23 May	13 June
Herring & Lesser B-b Gull	24 April	24 May	
Razorbill	24 April	29 May	18 June
Kittiwake	9 May	6 June	15 June
Fulmar	19 May	4 July	

Although not included in the main table, the following birds were seen on or near the islands during our visits:-

Red-throated Diver, Black-throated Diver, Manx Shearwater, Shelduck, Mallard, Teal, Tufted Duck, Goldeneye, Buzzard, Peregrine, Kestrel, Oystercatcher, Purple Sandpiper, Dunlin, Curlew, Common Sandpiper, Redshank, Snipe, Turnstone, Arctic Skua, Great Skua, Black-headed Gull, Feral Pigeon, Wood Pigeon, Swallow, Martin (unidentified), Wren, Rock Pipit, Pied Wagtail, Dunnock, Robin, Wheatear, Song Thrush, Blackbird, Willow Warbler, Blue Tit, Jackdaw, Carrion Crow, Starling, Chaffinch, Goldfinch, Linnet, Redpoll.

The following were also noted:-

Mammals: Bat (unidentified), Humpback Whale, Harbour Porpoise, Grey Seal, Common Seal, Mink, Rabbit.

Butterflies: Painted Lady, Red Admiral, Small Tortoiseshell, Small White, Large White, Green-veined White, Meadow Brown, Ringlet, Peacock and Six-spot Burnet Moth.

Thanks are due to the Forth Seabird Group for the figures and their observations.

Bill Bruce

DRAGONFLY VISITORS TO SCOTLAND IN 2003

Betty Smith

2003 has been an exceptional year for the number of reports of sightings of hitherto unrecorded species in Scotland.

First was a Broad-bodied Chaser, *Libellula depressa*, seen by members of an SWT survey team at Craiglockhart Pond on 24th June and photographed.

On 25th June, a party of the Treshnish Isles Auk Ringing Group were sitting on a cliff top on Lundy watching bottle-nosed dolphins in the anchorage down below. A dragonfly appeared rising above the cliff edge. Watched through binoculars, the dragonfly had a brown abdomen and brown wings and had two yellow thoracic stripes. Two of the observers who were familiar with the Brown Hawker, *Aeshna grandis*, knowing it from England, are convinced that this was the identity of the Lundy dragonfly. The wind direction was from the SW as it had been for the previous two days which suggests the likelihood that the insect came from Ireland.

An Emperor Dragonfly, *Anax imperator* was spotted at Craignecallie car park, near the Silver Flowe in Galloway on July 15th.

During 2003 a larva of an Emperor dragonfly was reported from a pond created in July 2002 within the golf course on the North Inch, Perth. The plants which were used to stock the pond were obtained in Essex. Readers may remember that some years ago several exuvia of this species were obtained from a garden pond in the Morningside area of Edinburgh as the result of an accidental introduction amongst pond-weed sent from the South of England.

Two male Emperor Dragonflies were seen on sunny days at a pond in Berwickshire between 19th July and at least 10th August. Several observers were lucky enough to see them. Common Hawkers, *Aeshna juncea*, were present for comparison.

At the same site as the Emperors, the local observer who had found them discovered a Ruddy Darter, *Sympetrum sanguineum* on 6th September. He saw it on three other occasions between the 6th and 11th September. Many Common Darters, *Sympetrum striolatum*, were present as also were 3 male Black Darters, *Sympetrum danae*.

Where have all these more southerly species come from and why, and what was so special about 2003. The summer was exceptionally dry and hot. Pools were drying out. Dragonflies had to range further afield to find potential breeding sites and came further north probably assisted by southerly winds. That is one explanation. However it is a fact that several of the more southerly species have been extending their range northwards through England over the last few years as well as new species coming in to SE England from the Continent. Global Warming has been suggested as the main cause. It remains to be seen whether the influx of visitors from the south will be repeated in 2004.

Good illustrations of our recent visitors can be seen in the *Field Guide to the Dragonflies and Damselflies of Great Britain and Ireland* by Steve Brooks illustrated by Richard Lewington.

THE VIOLET ANTHUR SMUT AND OTHER SMUTS

Smuts are parasitic fungi which usually produce blackish spores, hence the name. The Violet Anthur Smut *Ustilago violacea* attacks members of the Pink Family *Caryophyllaceae* and it is commonest on Red Campion *Silene dioica* and Lesser Stitchwort *Stellaria graminea*. It reproduces in the anthers, which instead of being yellow with pollen are swollen and purple with spores. Red Campion is dioecious, having male and female flowers on separate plants, but *Ustilago violacea* can cope with this - it releases hormones which force the plant to produce anthers! I have seen this smut on White Campion *Silene latifolia*, Sea Campion *S. uniflora* and Bog Stitchwort *Stellaria uliginosa* as well as the plants mentioned and, rather excitingly, Maiden Pink *Dianthus deltoides* - See Observations for 6/7/03.

Not all smuts hijack the plant's anthers; *Ustilago avenae*, another common smut, found on False Oat-grass *Arrhenatherum elatius* goes for the ovules so that the ovaries, instead of swelling with seed, blacken and produce dark spores; while *Ustilago longissima* which goes for Reed Sweet Grass *Glyceria maxima* produces long dark brown stripes on the leaves, from which the spores are shed. Affected plants are rarely able to flower. Reed Sweet Grass grows all the way along the Union Canal, and the smut can usually be found after a short search once the plants are well-grown. We saw it on the *SLUGS AND SNAILS* outing on 6th September.

Jackie Muscott

RAINFALL in CORSTORPHINE
2003

Munro Dunn

With only 510mm of rain falling, 2003 was the driest year in Corstorphine since the early 1970s. (466 mm in 1972; 498 mm in 1973). This total was 27% below average.

The contrast with the previous year was striking: with 944 mm, nearly double the 2003 total. 2002 had been the wettest year of the 38 since recording at the site began.

January was the wettest month, with 67 mm, although that was only marginally above the January average. Only May had rainfall appreciably above average.

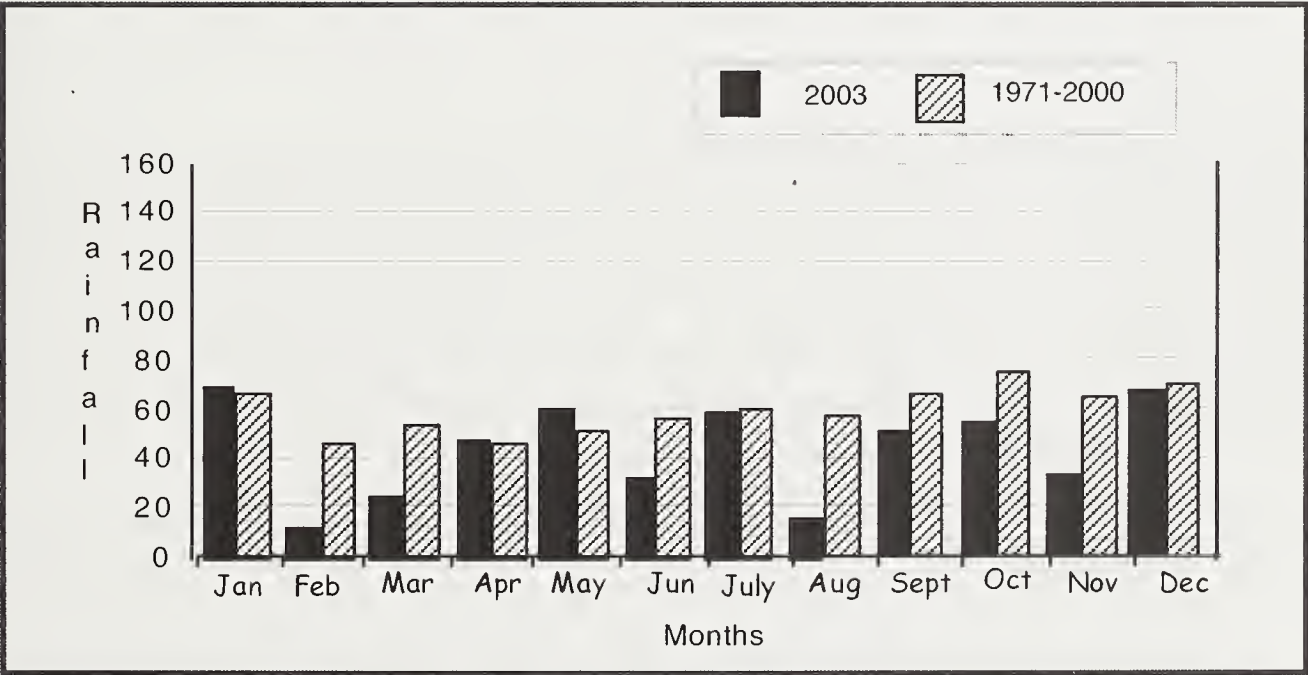
On the other hand, February, March and August had less than half the normal rainfall, while June, September, October and November all had well below average.

The deficit, therefore, was fairly well spread over the year, but was greatest in summer and autumn, and least in spring. This last feature was due to the rather wet May. Both March and April had 19-day spells with no measurable rain, only 1 day short of the longest dry period of the 38 years. These 2 dry periods were almost contiguous, being separated by only 2 days with rain.

Measurable rain fell on 163 days (20 days below average), the lowest number since 1975.

COMPARISON of RAINFALL in 2003 with AVERAGE for 1971 - 2000 (Millimetres)

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
2003	67	13	24	46	59	31	57	16	49	52	31	65	510
1971 - 2000	65	45	53	45	50	55	59	55	64	72	63	68	694
Average													



WEATHER NEWS?

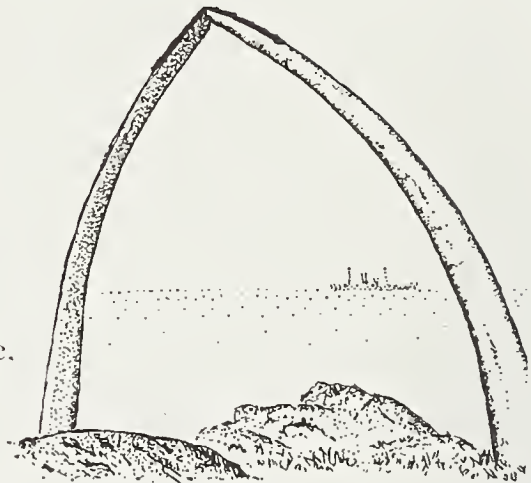
At Edinburgh Zoo, all four types of Penguin produced chicks for the first time ever (in 90 years). The King Penguin chick had to be hand-reared.

In October conkers were sent to Northumberland by Johnstons of Elgin to save the World Conker Championship, as the English chestnuts were too small and too soft.

WHALE ARCHES YET AGAIN

Elizabeth Farquharson

In the 2001 Journal I rashly claimed that it was unlikely that any more information on whale arches would come my way. It wasn't long before I was reminded that I had overlooked the arch at Lamberton, a few miles north of Berwick-upon-Tweed. This arch had to be moved when improvements were made to the A1. Old photographs show a good arch at the entrance to a field. It is now rather a sad spectacle beside a side road leading off the A1: much of the original length of the jaw bones has been lost and the bases are buried in blocks of concrete.



It was thought that the Musselburgh arch had collapsed from old age, as it had been looking splintered and broken for some time. However it came to grief when it was hit by a large van some months after a building firm had been taking exceptional care when passing under the arch during building operations in the area! The bones have been kept and are in a field nearby, and the town intends to re-erect them eventually. I have no recent information.

The arch at Campbeltown has gone. It was in the process of being chopped up for easier disposal when it was rescued. It is now in safe hands but has not been put back.

When I felt that my list was more or less complete I decided to contact Nicholas Redman, who knows more than anyone else about arches in the U.K. and has written many articles on the subject. It took several months to trace him, but eventually I sent him my list. As he thought his Scottish list was complete, we were both surprised to find that I could add two to his list - the lesser one at Cellardyke and the one at Cockenzie. I was also able to tell him that the one that had vanished from Biggar was now in Peebles. Nicholas then most kindly gave me the names of arches that were missing from my list:

Fraserburgh	-	In the garden of 41 Grattan Place
Kirkgunzeon	-	In the garden of Mansepark.
Kelso	-	In the garden of Spylaw Farm.
Kilmory Castle/Lochgilphead	-	An arch in the grounds now gone.
Gifford.	-	An arch on Rangely Kipp was removed about 1980
Heriot	-	In the grounds of Crookston. It fell down in the 1980s.
S. Martin's Abbey near Perth	-	2 arches on the estate.

During one's research on whales irrelevant facts often catch the eye and I would like to finish by quoting a few:

Ten to fifteen gallons of blood are thrown out of the heart at a stroke with immense velocity. (Hunter)

The aorta of a whale is larger in the bore than the main pipe of the waterworks at London Bridge. (Paley)

The quantity of line withdrawn from the different boats engaged in the capture of this one whale amounted altogether to nearly 6 English miles. (Scoresby)

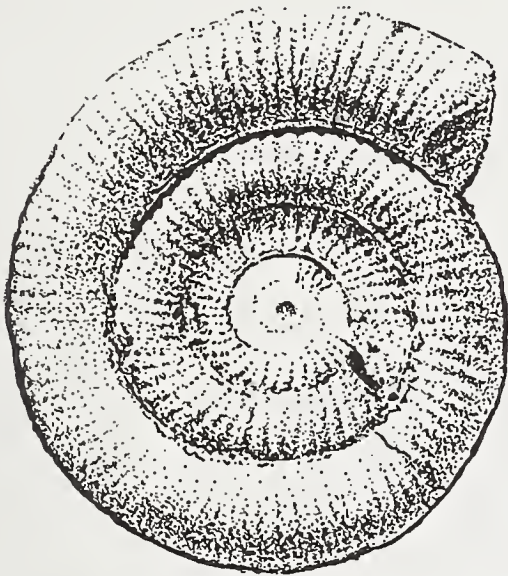
Whales have only one nostril. (Harrison)

A Blue Whale doubles its birth weight in 7 days. (Harrison)

FOSSILS IN THE ROCKIES

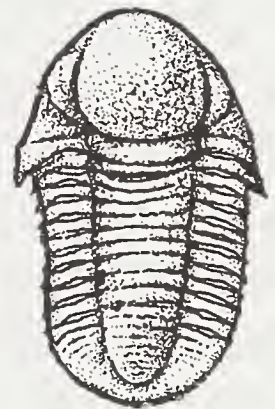
Margaret Perry

While searching for fossils on the beach at Eathie during our field trip to the Black Isle, it occurred to me that a note on another well-known geological site would be appropriate for inclusion in the Journal. The Burgess Shale is a small quarry in the Yomo National Park, high in the Canadian Rocky Mountains. It first attracted the attention of palaeontologists early in the 20th century, for the wealth of fossilised material it contained. The myriad of different life forms dated back to the Cambrian period, 530 million years ago, when there was a proliferation of the more complex invertebrates. The coiled shells of ammonites embedded in the slabs of shale that we collected at Eathie were comparative youngsters, dating back a mere 150 million years.



This is the coiled shell of an AMMONITE
- a mere 150 million years old

The Canadian site is considered to be one of the most important of fossil localities, containing the complete range of larger organisms from the Cambrian period. Stephen Jay Gould, in his popular account *Wonderful Life* (1989), brought the excitement of the discovery into the public eye. The quarry is now rigorously protected. It is visible from the highway, where display panels indicate its position on the mountainside, and can be reached by a stiff climb from the little railroad town of Field. For the faint-hearted, the visitor centre displaying specimens found at the site is worth a visit when touring the Rockies.



This is a TRILOBITE

Until James Hutton proved otherwise, it was believed that the earth was created about 4000BC. Now we believe that it is 4.5 billion years old!

"We must read the transactions of times past in the present state of natural bodies.."

James Hutton

by Robin Aitken



Why Friends?

The shorter Oxford Dictionary offers as one definition of a Friend, "One who wishes well". Roget's Thesaurus produces various alternatives such as "favourer, patron, backer, good genius, advocate and sympathiser". My own thought on the matter is that a Friend of a cause such as that espoused in this paper requires to be a subtle blend of all, and those who choose to become Friends implicitly will have different contributions to make.

Many Friends' groups have a long and historic provenance; for the purpose of this paper I will allude only to those of similar background and origin to ours. It is of particular interest to note the influence of William Wordsworth in the Lake District in the 19th Century, fervently believing that the beauty of the countryside should be preserved unspoiled. Significantly, in furtherance of this principle, *The National Trust* found its origins there, and in the early 1930s *The Friends of the Lake District* were formed to seek national park legislation, and to assist the Lake District to become a National Park.

Nearer to home in 1978, in response to a specific local environmental challenge, *The Friends of Loch Lomond* were established; they have witnessed the change of the area to National Park status. A body with similar interest, to promote public appreciation of, and care for the character, beauty and ecology of the Cairngorms area, is now a public registered company, the Cairngorms Campaign. This too has been much involved in discussions leading to the establishment of our most recent National Park in Scotland.

Why Friends of The Pentlands?

Robert Louis Stevenson wrote from Samoa in 1895 about his beloved Pentlands:-

Blows the wind today, and the sun and the rain are flying,
Blows the wind on the moors today and now,
Where about the graves of the martyrs the whaups are crying,
My heart remembers how!

His words embody the importance of the hills for the past, present and future generations, and inspire those who care about their beauty and wildlife to be committed to active preservation of their assets.

In 1997, a voluntary Ranger service was proposed for the Park; it was recruited, trained, and established. It has proved its worth in supplementing the work of existing permanent staff, particularly in view of the environmental pressure resulting from ever-increasing numbers of visitors to the hills. It is proposed that the Friends of The Pentlands will also integrate positively with Park activities and offer practical and constructive assistance; the Land Reform (Scotland) Act 2003 and the proposed Access Code will provide much scope for action.

The Pentland Hills Regional Park has for some time considered the establishment of a Friends Group for the Pentland Hills. As a Voluntary Ranger of some years standing with the Park, I was invited to initiate the setting up of such a group. After a study of the purpose, objectives and logistics, and consultation with other Friends groups, the idea was progressed with the help of a gathering of like-minded individuals. Stalwart, active and informed debate throughout the course of initial exploratory meetings produced a constitution and activity profile for a Friends Society. It was formally constituted in November 2003 and an interim executive council is in place until the Annual General Meeting on May 11th 2004. To accelerate the momentum of the Society, a thriving membership is required; a cascade recruitment is proposed, each new member introducing another. The intention is to create a Society both informed and enthusiastic about the Pentlands, and with the expertise and determination to achieve its aims.

The programme of events for the Society starts with a Pentland Hills Walk open to all members of the public on April 4th 2004; there will be a gentle walk for families and the less energetic, and a more strenuous route for those so inclined. Both will be led by Park Rangers, and will be well publicised in advance, with details also available from office bearers. Following this, a public meeting will be held on the evening of April 6th, to which all interested are invited. The purpose is to broadcast more widely our existence and aspirations, and invite discussion. The speaker will be Cameron McNeish, Editor-in-Chief of *The Great Outdoors* publication.

Subsequently, we hope that the Society will go from strength to strength, become involved in addressing environmental issues, help with practical tasks,

assist in a public education drive, publicise and promote activities, and look to long term achievement. Additionally, the Society has decided that the geographical area to be covered by the Friends will extend beyond the boundaries of the Park, to include the entire range of the hills from Dunsyre in the south-west to Hillend in the north-east.

How Did it All Start?

A historical resume will place this all in perspective, although it is interesting to speculate when precisely the human race first had reservations about the long-term implications of its influence and impact on land usage and consequent environmental change. In 1967 a report was published, *Open Space Plan for Edinburgh*, followed in 1972 by a Technical Group report, *Conservation and Recreation in the Pentland Hills*. Subsequently the Countryside Commission for Scotland issued in 1974 *A Park System for Scotland*. In 1975, The Secretary of State for Scotland designated the Pentland Hills as an area of Special Planning Control, and the Regional Council accepted the Technical Report of 1972, establishing in principle the concept of the Pentland Hills as a Regional Park. In 1976, a Ranger Service in the Park was established. The Countryside (Scotland) Act of 1981 made it possible for the Regional Council to meet its policy objective for the Regional Park, and following public consultation and an enquiry, the Regional Park Designation order was confirmed without modification in 1986.

A Plan of Action

A modus operandi has been agreed by the Executive Council, setting out short-term objectives and medium-term aspirations. Initially, until the Society achieves a robust stature, these will be anticipatory and modest, but aimed at long-term realisation and sustainability.

In the short-term it is the intention to seek charitable status, and develop a strategy to recruit sufficient members to reflect the importance of the Society, and to address the many and varied aspects of its work. Resources will be required for Society activities; in addition to finance generated from membership subscription, means will be sought for short and long-term funding; in tandem with this will be the establishment of a media campaign to promote the work of the Society.

The Society will seek to establish an annual programme of events open to all; this will be in addition to a wide variety of ways in which members can participate. An example might be involvement in practical tasks to be undertaken, many of which will be in support of the Park Ranger Service, eg. gathering statistics for biodiversity. A monitoring of established activities within the Park will allow an evaluation of their impact and enable decisions to be taken about their encouragement, modification, re-location, or even local byelaw provision, eg. inter alia, orienteering, pony trekking, mountain biking, wild camping, fires and barbecues, exercising of dogs. Positive steps will also be taken to establish an educational module, directed at offering increased knowledge of the Hills, particularly with reference to biodiversity, geology, archaeology, path networks, and social history.

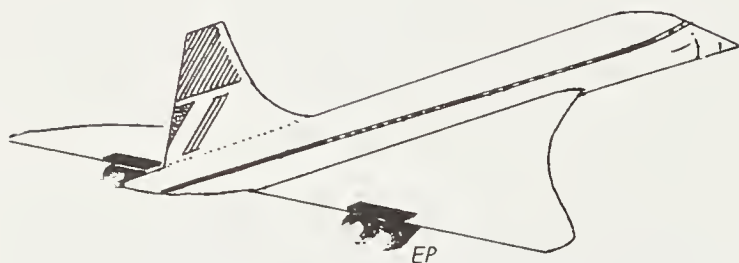
In the longer term it is hoped to establish a major annual event in the Hills to promote awareness of the work of the Society, and to encourage recruitment. In addition, a vigilant stance will be maintained in observing developments of whatever nature, to allow judgement to be made as to their desirability or otherwise. This latter and fundamental activity will be crucial in establishing the credibility of the Society in the eyes of all the bodies and individuals with whom it works.

OFFICE BEARERS.

CHAIRMAN	Dr. Robin Aitken T.D.	Tel. No: 0131 441 2615.	
SECRETARY	Lt. Col. Robert Potterson O.B.E.	Tel. No: 01383 41777	Email: pentlandfriends@tiscali.co.uk
MEMBERSHIP SECRETARY	Dr. Jahn Loudon O.B.E.	Tel: No. 0131 452 9525	Email: JahnB@Loudon43.fsnet.ca.uk
TREASURER	Nigel Fairhead.	Tel. No. 0131 441 2210	Email: n.fairhead@virgin.net



AND NOW FOR SOMETHING COMPLETELY DIFFERENT



New ENHS members Eunice and Roger Holme recently had a day of a lifetime. When the retirement of the Concorde fleet was announced by British Airways, a competition was advertised with a prize of free seats on the final flights of the aircraft, when it would visit 5 of the major cities of the United Kingdom.

The Competition consisted of one question "What is the record time for a Concorde flight between New York and London?", to which the correct answer was 2 hours 57 minutes. Roger made 1 entry and Eunice made around 2 dozen; in total over 5 million entries were made. Many weeks later Eunice received a phone call from British Airways saying that one of her entries had won the competition and that she could take 1 guest along with her. A very excited Eunice then spent most of the afternoon and evening phoning friends (Roger, who was at work, was first) exclaiming her delight at winning the prize. Roger had first seen Concorde at Paris in its early years, and many times since at Heathrow, and he had always held a seemingly unreachable dream of flying on the aircraft.

A few weeks later Eunice received a call from British Airways saying that they had been chosen to fly from London Heathrow to Edinburgh, on Friday 24th October. This was to be the last day of Concorde carrying passengers, which made the event even more exciting. As the day approached, the atmosphere became more excited; indeed the night before was like 'the night before Santa' in their home in Kirkliston, with various media agencies contacting them for interviews.

The 24th started very early, with Roger and Eunice arriving at Edinburgh airport around 5am to catch a connecting flight to take them to Heathrow.

From the moment of arrival, they were treated like VIPs, being escorted directly to Edinburgh's Executive Lounge for breakfast, to await the departure of their flight. On arrival at Heathrow they were taken directly to the Terence Conran Concorde Lounge in Terminal 4. It was here that the Champagne started flowing. Once in the lounge, there was the first sight of Concorde, 'Alpha-Echo' (G-BOAE) first flown on Rogers birthday in 1977, gleaming in the early morning sunshine. The crew also mingled with the passengers and Captain Les Brodie proudly announced that the flight would attempt to reach her maximum altitude. The route was to be over the North Sea towards the Norwegian coast, before turning towards Aberdeenshire, and then via Stirling to Edinburgh.

Boarding completed, the aircraft taxied proudly round Heathrow, showing off to the waiting press and the lined crowds of BAA staff. It was amazing to see the lines of other aircraft waiting to take off, their pilots leaning out of the cockpits with their cameras! The take off was exciting with the aircraft switching on full power and accelerating from a complete standstill to 250 mph in 20 seconds! The passengers were thrown back in their seats and the Speedbird roared into the skies over Heathrow for the last time. After passing over North London and the Essex coast, the aircraft took another surge of power as the afterburners were re-engaged to take the aircraft up to 58,000 feet and Mach 2 (twice the speed of sound) - around 1350 mph at that height.

The flight was exceedingly smooth, more so than the connecting flight on the Boeing 757, with barely a ripple visible on the Champagne glasses. A superb meal of poached salmon and exotic vegetables was served, with yet more Champagne as the aircraft headed over the North Sea. For a brief moment the altitude exceeded the maximum 60,000 feet and the curvature of the earth became quite apparent.

After what seemed to be a short time the aircraft turned towards Scotland, crossing the coast near Peterhead and heading directly for Perth and Stirling. The pilot, Captain Andy Baillie, lives at Bridge of Allan and his wife is a teacher at the school there so he had persuaded Air Traffic Control to let him circle Concorde over the area at a low altitude. It must have been a spectacle for anyone walking in the Western Ochils! The plane then flew in an easterly direction following the

River Forth and banking sharply, made an easterly approach into Edinburgh Airport, where thousands of onlookers were awaiting its arrival causing major traffic problems in the vicinity.

Roger said "This has been a great thrill for us and a lifetime's ambition fulfilled. We were treated as VIPs from the moment we arrived at Edinburgh for our connecting flight to London and then via the Concorde Lounge at Heathrow to the flight itself.

I was so impressed by the aircraft, which did not fly like a 30 year old; it is so sad to see this icon of the skies go out of service, especially when there is no replacement of its kind".

Since that time it has been announced that Concorde G-BOAA (not in airworthy condition) will be retired to the Aviation Museum at East Fortune, but sadly will never fly again.

Roger Holme



It was quite a spectacle, if a more distant one, from the top of Turnhouse Hill! From there walkers had a splendid view of the plane landing and taxi-ing on the runway at Edinburgh Airport. LB, MC,SS

EDINBURGH BIODIVERSITY ACTION PLAN

Edinburgh Natural History Society continues to be one of the partners in the Edinburgh Biodiversity Action Plan. The Plan is now in its second stage and is focused on habitats. In an attempt to raise the profile and increase understanding of biodiversity, a monthly poster competition has been organised. In addition, community groups who wish to undertake appropriate ventures can apply for grants from several major organisations who are currently offering support for the Local Action Plan. The Nats has offered to support a small project and it is hoped that a suitable one can be identified.

Consideration is now being given to relevant issues so that planning and actions can go ahead to conserve, increase and promote the biodiversity of habitats such as coastal, farmlands, grasslands, rockfaces, uplands, urban, wetlands and woodlands.

In the Woodland Plan, not only the species but also the age and size of trees and additional features such as leaf litter receive attention. Associated 'flagship' species of plant and animal life have been identified as indicators of biodiversity within the woodland areas. Whilst taking account of the need for public safety, recognition has been given to the protection of standing and fallen dead wood as a valuable habitat for particular insects, plants and fungi. It is aimed to achieve a balance between the desire to find new areas in which to plant trees, and the need to manage recently planted areas and other mature woodland. Consideration is also being given to new woodland projects such as the introduction of suitable 'wild' plants into the newly planted areas.

There have been similar discussions and planning for each of the other Habitat Plans. The Biodiversity officers can be contacted by telephone (0131 469 3920) or by email:-

Susan Steel: susan.steel@edinburgh.gov.uk

Caroline Peacock: caroline.peacock@edinburgh.gov.uk

Details of the current situation can be found online at: <http://www.edinburgh.gov.uk/>

Eunice Smith ENHS representative on the Steering Group

A BRIEF BEGINNERS GUIDE TO MOTHING

Jeff Waddell

On recently joining the Edinburgh Nats I was pleased to see that the Journal contained lots of articles and observations on popular aspects of natural history, such as plants and fungi, birds and mammals. I thought that one subject which had been rather neglected in recent years was Entomology, the study of insects, apart from the notable exceptions of dragonflies and butterflies.

I thought I would try to redress the balance by writing an article encouraging the Edinburgh Nats to become more interested in studying and appreciating the moths of the Lothians. Many naturalists don't confine themselves to studying one particular branch of natural history: most see themselves as generalists, with a bit of knowledge in several groups e.g. birds, mammals, plants and butterflies. But even the specialists, who devote so much time to studying one particular branch, can't help appreciating other species they encounter when out in the field. I believe that all naturalists, no matter how their interest manifests itself, share the same basic interest in nature. This is shaped by the other naturalists they meet, the places they visit, and by what they see there. I think this is one of the reasons why bird watching is probably by far the most popular branch of natural history. There are so many birders to teach and encourage new ornithologists and the preservation of bird habitats is probably the main reason for nature reserve establishment in Britain.

Maybe a few chance events can divert a naturalist's interest in a completely different direction. Speaking from my own experience, I was initially completely immersed in botany, but after meeting some influential people interested in moths, who showed me a few of the more exquisite species and introduced me to the strange new world of moth trapping, I was completely hooked. I hope that at least one or two people reading this article have a similar experience.

I assume not all readers of the Journal will have been out on a moth-trapping night, but it is one of the great experiences of British natural history. It encourages you to visit places at night which, even if you have been there during the day, will feel totally different: whereas you may see the occasional insect during the day, you will be amazed by the attraction of mercury-vapour lights on the balmy midsummer nights of July, when the moths reach their peak of diversity and abundance. It is not unheard of to get fifty or so species of larger moths (a.k.a macro-moths), not to mention the micro-moths, in a single garden moth trap in one night. On an exceptional night, in an ancient coppice woodland in the English

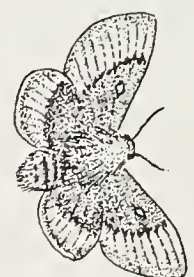
Midlands, it is possible to get in excess of 150 species of macro-moths, if several traps are scattered along the woodland rides.

Although regularly running a moth trap at remote sites, such as nature reserves, is perhaps for the most dedicated moth-er, anyone can catch a surprising number of species in his or her garden. Even nationally-rare species will turn up in a garden from time to time, as most moths are capable of flying considerable distances from their breeding habitats. In addition to the resident species, migrant species will also turn up irregularly, such as the Silver-y and Dark Sword-grass. Some of these migrants will have travelled all the way from Africa if there is a period of sustained southerly winds, particularly towards the end of the summer. I have caught and identified (with help from some experts) approximately 212 species of macro-moths in my garden at Galashiels in the Borders in the last two years, including three nationally scarce species - The Saxon, Plain Clay and Red Sword-grass - despite being a relative beginner, starting about four years ago.

Contrary to popular belief all moths aren't brown and they don't all look the same; some are in fact really stunning. Everyone starts by learning the most brightly-coloured and obviously-patterned species, such as many of the geometers, which are almost fluorescent green or yellow; or the Burnet Moths and Clearwings with their warning colours.

One aspect of moth identification which will perhaps appeal to some people, is that there is little need to learn technical names or use complicated keys. Virtually all macro-moths can be identified by matching their wing markings to pictures in the books.

For someone wanting to learn to identify macro-moths, the book I would recommend is *Colour Identification Guide to Moths of the British Isles* by B. Skinner, published by Viking 1984. This is a reasonable-sized book which covers all the British macro-moths, with colour photos of set moths i.e. dried with their wings open, as in museum collections.



NORTHERN OAK EGGAR

Another way to identify a moth you have caught is to look at some online photos. There is a website dedicated to moths, with photos of virtually all species of macro-moths and many micro-moths including the various life stages:

www.ukmoths.force9.co.uk

Moth trapping with a mercury-vapour light moth trap is the best way to learn about moths for most amateurs. All you have to do is buy or make your own moth trap, plug it in and leave it in your garden for a few hours after dark. It is perhaps one of the least strenuous natural history pursuits, as you can watch TV and have a nice cup of tea in the comfort of your own home whilst the moth trap attracts and contains many moths in an easily emptied box. Although it is called a trap, the moths are not harmed and can be released or kept after they have been seen. I generally put the trap out in my garden at dusk and have a look before I go to bed. Some people leave the trap overnight and check it in the morning, but if you do this too often, it gives a new meaning to feeding the birds!

There are a few different types of moth trap, using different lights, boxes and power sources, and this is quite a complex subject in itself. Suffice to say the Skinner-type mercury-vapour light moth trap is probably the best for garden use in most cases. The Skinner-type trap was invented by Bernard Skinner and is basically a cube with the upper face missing. Two sheets of perspex slope into the open top of the cube, leaving a small gap between them for the moths to enter. This is like a lobster pot, letting the moths enter easily but not letting them go.

A few egg cartons are put along the insides of the box, so that once the moths are trapped they can find somewhere to hide from the light, and rest. The egg cartons can be lifted from the box to examine the moths, without touching or disturbing them. A wooden beam along the top of the centre of the box has a mercury-vapour light bulb on it to attract the moths in the first place. This is the best type of light source as it is very bright and emits a lot of ultra-violet light, which is the wavelength moths are most attracted to.

Finally two more pieces of kit that are essential are some pots (40p each) for holding the moths while they are observed, and a butterfly net (£10 approx) for catching moths, and indeed butterflies, during the day, and at dusk and dawn.

It is possible to teach yourself to identify moths on your own, using the above equipment, but it is best to learn from a more experienced moth-er who can point out any mistakes you are making. I am hoping to lead a moth-trapping night somewhere in the Borders next year for the Edinburgh Nats. I also do a lot of trapping at Sites of Special Scientific Interest and National Nature Reserves in the Borders, and in Dumfries and Galloway during the year, for the purpose of biological recording. I would like to invite any of the Edinburgh Nats who may be interested, to come along on these trips either individually, or in small groups. Please send me a note and contact details to the below address and I will be in touch to arrange something.

Anyone interested in learning more about moths should contact me. I will be happy to provide more information about books and equipment.

*Jeff Waddell, Bonavista, Heatherlyett Drive,
Galashiels, Selkirkshire, TD1 2JL.*

UPDATE ON MUSSELBURGH LAGOONS DEVELOPMENT *from Richard English* (*See Musselburgh Lagoons Outing, 12th April*)

Nothing has been decided as yet. As you're probably aware the original proposal raised a lot of strong feelings (both for and against). As a result of objections/comments made during the consultation an amended proposal is being drawn up and will hopefully be unveiled before too long. Alternative plans incorporating some of the original scheme were suggested by (amongst others) my department (Landscape & Countryside Management) and RSPB. These were intended to allow some development, but to minimise the potential damage to the site.

At the moment it's very much "watch this space". It is almost certain that the hotel will not be built. This was dropped by the developers "in response to environmental concerns". The racetrack extension is likely to go ahead as there were few objections to that. The golf course is likely to go ahead in some form, although hopefully the space given over to it will be restricted. Essentially, there will almost certainly be some development but hopefully its impact on the site will be limited.

NATIONAL GRID TREE WARDEN SCHEME

Eunice Smith

The Tree Council was launched in September 1990 and since then has worked closely with local authorities to set up Tree Warden Networks throughout the country. The National Grid Tree Warden Scheme was founded to enable people to play an active role in conserving and enhancing their local trees and woods.

Tree Wardens are volunteers and do not claim to be experts. They are appointed by parish councils and community groups. The aim is to have a nucleus of people on the spot who know their own localities intimately and who have most to gain from the protection and enhancement of their immediate environment. They may be encouraged to plant and care for trees, gather information about local trees, and develop imaginative projects to encourage others, including school children, to value their local trees and woods.

A Tree Warden Scheme has been established in Edinburgh, and throughout last year there have been several training sessions such as summer and winter tree identification; seed collection; tree planting and aftercare; woodland ecology and management. A further course is planned for legal issues concerning trees. There are still some areas of the city which do not yet have a representative Tree Warden.

If you would like more information about the scheme, or wish to comment about some particular tree etc., you may contact Mike Foy (Urban Forestry Officer, City of Edinburgh Council) by telephone: : 0131 469 3677 or email: mike.foy@edinburgh.gov.uk

Websites:

www.treewarden.org.uk/Index.html and
www.treecouncil.org.uk

YOUR VIEW of a TREE?

DEPENDS ON YOUR POINT of VIEW!



The Parks Department



Town Planner



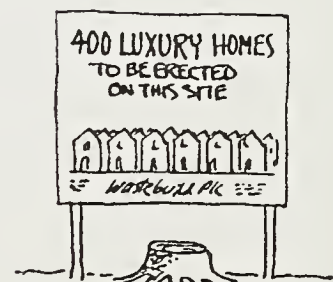
The Landscape Architect



Highways Department



The Publisher



The Developer

Someone sent us these quirky cartoons a few years ago. We have been unable to trace the source, but thought that you would enjoy them!

THE FRIENDS of the HERMITAGE of BRAID and BLACKFORD HILL

The Friends of the Hermitage of Braid and Blackford Hill were set up in 1999 with the following objectives:

1. To conserve and enhance the landscape biodiversity and sustainable use of the Hermitage of Braid and Blackford Hill Local Nature Reserve
2. To engage and involve the local community in environmental issues and action, through information exchange, education and practical activities.

This green space on the south side of Edinburgh, although almost completely surrounded by suburban development, comprises some surprisingly wild hill and woodland habitat. It belongs to the City of Edinburgh and is managed by their Countryside Ranger Service on behalf of the Culture and Leisure Department. The Friends are a voluntary group of mainly local residents, and we work in cooperation with the Rangers to pursue these objectives.

Our activities include practical conservation events such as burn clean-ups, vegetation control and path maintenance, as well as efforts to encourage

wildlife such as installing bird and bat boxes and a recent exercise to re-introduce Sticky Catchfly to the reserve (with the help of Nats volunteers).

On the education side we put on talks and guided walks on popular wildlife topics such as bats, breeding birds and fungi, and another aspect of our activities is campaigning against unsuitable development plans for areas adjacent to the reserve.

One of our most successful recent ventures has been the management of a wetland patch near to Blackford Pond, where we have raised money from grants to install improvements to a neglected area of the reserve including a boardwalk, information boards and benches. Visitors to the pond area now have a better chance to observe the fauna and flora over the changing seasons in this newly developed area of interesting habitat.

Rob Elton

Convenor, Friends of the Hermitage of Braid and Blackford Hill

Phone 0131 667 4079 or visit our new website at www.fohb.org for further details and contacts.

Sticky Catchfly *Lychnis viscaria* used to grow on Blackford Hill many years ago. It is a pretty plant with a pink flower and sticky patches on its stem. It still grows on rocky ledges in Holyrood Park and a conservation programme was started there some years ago, to increase its numbers. From seeds collected there by the Botanics people, it was decided to re-establish the Blackford plants, so on a blustery day in November, Heather led a group of eight, including Douglas McKean, three Nats, Friends of Blackford Hill and the local Ranger on a planting expedition. We planted thirty-one Catchflies, in little groups, and Heather did some high-tech work with a camera and Global Satellite Positioning thingy, to record their sites. Most of them seem to be doing quite well, except for the one dug up - by dog or man - before we had even finished our planting! LB,MP,SS

TREE CREEPERS IN EDINBURGH

I don't know whether Tree Creepers move into town for the winter, or whether they are just more obvious - but that's when I seem to see them:-

- 19/2/03 on trees by Sciennes Road
- 24/2/03 on trees at the West end of the Meadows by Melville Drive
- 15/12/03 on trees at the West end of the Links by Melville Drive
- 25/12/03 on trees at the North end of Jawbone Walk, the Meadows

Jackie Muscott



EXCURSIONS 2003



Saturday	19th	January	Royal Observatory	Observatory Staff
	14th	February	Threipmuir	Natalie Taylor
	16th	March	Bawsinch Reserve	Colin McLean
	12th	April	Musselburgh Lagoons	Richard English
	26th	April	The Hirsell	Mary Robertson
	3rd	May	Ardmore	Ian McCallum
	10th	May	Pencaitland	Betty Smith & Lesley Fairweather
	17th	May	Flotterstone	Victor Partridge
	24th	May	Coast west of Gullane	Margaret Watson
Wednesday	28th	May	Hermitage of Braid	Margaret White
Saturday	31st	May	Carlops - North Esk	Mike Jones
Saturday	7th	June	St Abbs Head	Kevin Rideout
Wednesday	11th	June	Harlaw Reservoir	Christine Rae
Saturday	14th	June	Lamberton	Michael Braithwaite
Monday	16th	June	Adder's Tongue Survey	Natalie Taylor
Wednesday	18th	June	Maiden Craig & Ravelston Wood	Mary Tebble
		CROMARTY	Friday, 20th - Tuesday, 24th June	
Saturday	28th	June	Earlsferry Links	Lyn Blades
Wednesday	2nd	July	Straiton Pond	SWT Ranger
Saturday	5th	July	Saltoun Hall	George McDougall & David Adamson
Wednesday	9th	July	Bonaly	Janet Watson
Saturday	12th	July	Luthrie Circuit	Graham Swift
Wednesday	16th	July	Craigleith Quarry	Sarah Arkley & Ewan Hislop
Saturday	19th	July	Innerleithen	Eric & Eileen Perry
Wednesday	23rd	July	Dunsapie	Natalie Taylor
Saturday	26th	July	Loch Moraig	Jackie Muscott
Wednesday	30th	July	Mortonhall/Braids	Margaret Perry
Saturday	2nd	August	Siccar Point	Betty Mitchelhill
	9th	August	Pressmennan	Neville Crowther
	16th	August	North Berwick SSC	Peter Griffiths
Wednesday	20th	August	Queen's Park - Bats	Natalie Taylor
Saturday	23rd	August	Borthwick	Bill Baird
	30th	August	Balbirnie Pk and Star Moss	Frances & Munro Dunn
	6th	September	Snails - Union Canal & Blackford Hill	Adrian Sumner
	13th	September	Linlithgow Loch & Blackness	Martin Gray
	20th	September	Hangingshaws, Yarrow	Roy Watling
	27th	September	Vane Farm	Colin Shaw - Warden
	4th	October	Auchendinny & Firth	Mike Richardson
	11th	October	Aberlady	Bill Clunie
		ISLAY	Monday, 3rd - Friday, 7th November	
	15th	November	Tweed Walk	Mary Clarkson
	6th	December	Building Stones of Edinburgh	Betty Mitchelhill

EXCURSIONS 2003



ROYAL OBSERVATORY and BLACKFORD HILL

Date 11th January

It was a cold bright morning when the Nats assembled in the warmth of the Observatory shop to meet the guide who was to lead us through a tour of the Observatory. She was a final year astronomy student called Nina, who took pleasure not just in showing us what the building contained, but also in taking us on a whirlwind tour of many aspects of astronomy.

First, we ascended to the top of the building where the 36-inch reflecting telescope is housed and Nina invited us to sit while she talked about the history of the telescope and its various parts. Immediately it was evident that the temperature in this room was the same as that outside to prevent condensation on the mirrors - this despite the fact that the telescope had not been used since the 1970s! The telescope when in use could be rotated about a fixed axis directed at the Pole Star, as well as vertically, so that it could be directed towards any part of the night sky. Sliding doors in the roof and sides of the room which could be rotated as a whole, provided access to the outside for viewing. The telescope was in use from about 1930 until the 1970s. Its main function was to examine the radiation from stars to determine the chemical composition of the material which was emitting it. To this end the radiation was passed through a very small hole on to a grating which decomposed it into its constituent frequencies. The second telescope (also now out of use) was used to take a wider view of the sky.

After lunch, sated with the information which Nina had imparted to us, we enjoyed a pleasant walk on Blackford Hill, in chilly but quite sunny conditions.

Andrew Gilchrist



THREIPMUIR RESERVOIR

Date 14th February
Leader Natalie Taylor

Winter wildfowl - a nice, simple, fairly easy walk to lead at a well known site that is always good for waterfowl - or so I thought when I agreed to lead the Nats on a walk around Threipmuir Reservoir near Balerno, to look at the wintering ducks and geese. The only thing I hadn't bargained for was the fact that the reservoir would have had its water level lowered so much that to call it a puddle would have been generous! Not only that, but due to the cold weather most of the water that there was, was frozen. When looking for water birds, the presence of unfrozen water is usually fairly essential. However, despite their leader's mild panic the Nats, being the brave group that they are, pressed on regardless. Apart from the biting cold, the weather was fine, and 29 Nats (plus one dog) turned up for the wild goose hunt.

We started off from the Threipmuir car park, walking east towards Threipmuir Reservoir, detouring off the path to view Threipmuir and mid-Threipmuir from the bridge that crosses to East Bavelaw Farm. One benefit of the extremely low water levels was the expanse of exposed mud which provided feeding areas for waders, such as Lapwing, Redshank, Oystercatcher, and a rather confused Green Sandpiper who had stopped off during his autumn migration south, and for some reason had stayed. We also had some distant but hopeful views of ducks on the water which we hoped to see better further round.

Which we did! Given the lack of water there were surprising numbers of birds on the little free water. Although there was not a great variety, we got good views of Teal, Tufted Ducks, Goldeneyes, Cormorant, and, further round near the head of the reservoir, a small group of Goosanders. Standing idly on the ice was a selection of Herring, Black-headed and Lesser Black-backed Gulls, looking about as pleased with the cold, windy weather as everyone else! The trees and bushes alongside the reservoir also provided some nice birds, including Chaffinches, Robins, Blue and Great Tits, Wrens and Greenfinches. Pink-footed and Greylag Geese were feeding in the fields either side of the reservoir alongside Rooks, Fieldfare, Starlings, a Skylark,

Woodpigeons, a Mistle Thrush and Carrion Crows. Three Barnacle Geese flying over were also seen by some of the group. We too were lucky enough to see a Buzzard lazily flapping over, and a Kestrel busily hovering searching for food. Some sharp-eyed people were also quick to spot a Stoat shooting across the path in front of them.

Although as a waterfowl walk the trip fell rather short, the walk along Threipmuir, up to Harlaw on a fine, cold February day was very enjoyable and provided us with some very nice birding.

Natalie Taylor

SWT BAWSINCH RESERVE

Date 15th March
Leader Colin MacLean

Colin MacLean gave an introduction on the history of the Reserve and explained the connection between the SWT Bawsinch Reserve and the Nats. William Askew presented land to Holyrood Park in 1924. The area of Bawsinch was used by the Americans as an army camp during the Second World War and at the end of the war was a derelict site. In 1967 proposals were put forward to develop the site, which fortunately a public enquiry turned down, and the Scottish Wildlife Trust purchased the area in 1970, with a grant of £10,000. Another two pieces of land across the road were purchased in the early 1980s for £500.

The origin of the name 'Bawsinch' is unclear, with some saying it is a derivation of Boarsinch or Inchhouse, being a grassy place; it has even been suggested that it may have been a place where ball games were played.

Different habitats have been created: scrubland, mixed woodland, wild flower meadows, a series of fresh water ponds, and an area of mown grass in the Goose Green. There were nine Greylags recorded in 1963; 700 have been recorded in recent years but this number is down a bit now, to approximately 300, as a result of Fox predation. Greylags used to nest here but there are now only two nesting pairs; most of the population breed around reservoirs in the Pentland Hills.

Habitat 1: Mixed Woodland

In 1970, the area was wilderness with not much more than Nettles, Willowherb, False Oat Grass and Creeping Thistle. Planting started in 1973 with trees native to Britain, not just to Scotland. Natural regeneration of both Oak and Beech has been encouraging. Sycamores are gradually being taken out and will be replaced with Oak. The Oak trees at the gate are children of original Oaks, and there are both Sessile *Quercus petraea* and Pedunculate *Q. robur* on the Reserve. Identification of these two

species of Oak was explained: in Sessile the acorn sits up and the leaf is straight at the stem; in Pedunculate the acorn dangles and the leaf is lobed where it meets the stem i.e. it has oracles. Several exotics were also planted, Horse Chestnut being one such. There are 44 species of tree on the reserve and the bird population has responded to this. Birch seed came from Killiecrankie; Scots Pine from Aboyne in Deeside; Oak from Dalkeith and acorns from Birnham. There are also Hazel, Blackthorn, Aspen, both White and Black Poplar and Wayfaring-tree *Viburnum Lantana*, the fruits of which are emerald, then go red and finally turn black. Whitethroats eat the fruit, as do thrushes.

It was rather nice to watch Long-tailed Tits feeding on the eggs of aphids. Juniper *Juniperus communis* (one of our native conifers) is experiencing problems from the Aspen which spread by underground suckers and are doing so well that they are depriving the Juniper of water and light. As part of the management of the mixed woodland, two of the older Scots Pine have been ring-barked because there is no regeneration, to make space for young trees which are being brought in from the Tyndrum area.

Wych Elm *Ulmus glabra* is native and is one of the first to flower, with the fruit developing very early and ripening by June. Gean and Bird Cherry have also been planted. We walked through a small copse planted in memory of Brenda Gordon. The Hazel has not been coppiced and there is Small-leaved Lime, the leaves of which are very sweet. This tree is native as far north as Yorkshire. There is some damage to the Lime trunks as this is part of the Grey Squirrel diet. Ash also grows on the Reserve.

Habitat 2: Freshwater Ponds

The Braid Burn is an outflow of Duddingston Loch, where Greater Reed-mace *Typha latifolia* grows from seed borne on the wind. Narrow-leaved Reed-mace *T. angustifolia* also grows. The watertable is high here, thus making it suitable for ponds. When Rocktrap Pond was constructed, the bung from it was used to stop rockfall on the Park Road. Willow and Alder grow in this area, and Aspen has been introduced to replace the diseased Elm trees. Luke Pond was dug in 1974 and Gunn Pond in 1983, the latter being paid for by the ENHS in memory of Peter Gunn who had left money to the Society. Of the amphibians, there are Smooth Newts which were introduced from the pond at the airport, and we saw frog spawn. Of the dragonflies, there are Hawkers and Darters. Moorhen also nest here.

Crassula helmsii usually called New Zealand Pygmy Weed grows on the ponds. It is an accidental exotic invader, but Bogbean *Menyanthes trifoliata* seems to appreciate its support and is thriving. War is being waged on Himalayan Balsam *Impatiens glandulifera*, (which is mulched with silage from the mown flower

meadow to eradicate it). Sycamore (by ring-barking) and Giant Hogweed *Heracleum montegazzianum* growing by the golf course.

Habitat 3: Wildflower Meadow

The wild flower meadow was created in 1986 with the topsoil being bulldozed off, and we saw Cowslips *Primula veris* coming through. Rest-harrow *Ononis repens* and Birdsfoot Trefoil *Lotus corniculatus*.

Of the mammals, two species have been lost in the Reserve: Mole and Brown Hare. There are Fox, Otter, Mink, Grey Squirrel, Rabbit, Bank Vole, Short-tailed Vole and Wood Mouse. Roe Deer disappeared from Bawsinch after Savacentre was built.

The Heronry on Duddingston Loch has 16 occupied nests this year, compared with 24 last year. In 1983 one pair nested on the ground, making use of inlet excavation in the reed beds.

Thanks to Colin for giving up his time and for a most informative walk round the Reserve.

Joanie Fairlie

MUSSELBURGH LAGOONS

Date 12th April
Leader Richard English

Fifteen of us met at the mouth of the River Esk to hear the Ranger, Richard English, describe this prime bird-watching site. It was a clear still sunny day, the light being perfect for watching birds; with the sun behind us, views across the estuary and over the sea were excellent.

At the start of our walk, Richard helped us to identify Knot, Redshank, Curlew, Oystercatcher, Dunlin and Turnstones, all gathered on the far west shore. On the river itself we saw Mallard, Goldeneye and Mute Swans; and Herring, Black-headed, Lesser Black-backed and Common Gulls. Richard demonstrated how the influx of Oilseed Rape, Thistles and other plants on the banks of the first lagoon provided abundant food for Linnets and Goldfinches. We heard a Skylark singing, and saw Meadow Pipits in the grass.

On the sea east of the estuary we watched Eiders: the handsome black and white males, drab females and the exotically-coloured plumage of their young juvenile males. With the help of Richard's telescope and others brought by Nats members, we saw Velvet Scoters with one or two Common Scoters (less common at this site, in fact, than the Velvet!). Several Long-Tailed Ducks were spotted, and a splendid male Goosander was compared with the male Red-breasted Merganser which was also

out at sea. Richard pointed to a Gannet flying past and we also saw Guillemots, a Razorbill and a Puffin swimming not far from the sea wall.

We climbed up to see the lunar landscape of the ash lagoon which provides a popular roosting area for waders. Richard told us the plans for this Special Protection Area, which include gravelling, a higher wall around it and, hopefully, a hide or two. We were not so happy to hear that a huge hotel might be built to overlook it from the west, and a golf course to the east, which could destroy the land where Brown Hares come, where winter waders roost, and where Sandwich Terns come in summer and Skylarks nest. We all thought that a wildflower meadow would be preferable, although, of course, a golf course is better than housing.

We continued to walk along behind the sea wall and saw Wigeon on the sea, still here before leaving for their summer breeding grounds. Following the wheelchair path to the Nature Reserve scrapes, we watched model yachts racing on the boating pond. At the scrapes, Teal were present. We settled to have lunch in the spartan, vandal-proof hide and were fortunate enough to see a Snipe with its wonderful striped plumage and long straight bill and a Black-tailed Godwit, which Richard taught us to distinguish from the more common Bar-tailed Godwit by its longer legs, straighter bill and more homogenous plumage. We also saw a Ruff. Our bird list for the day contains 45 species.

We thanked Richard for helping us to locate and identify these birds and for describing his work, the history of the site and the proposals incorporated in the £25 million development scheme. Personally, I think it would be a disaster for the site should they go ahead unmodified. But by the time this journal is published in 2004, decisions will have been made and put into action. I can only hope that this wonderful place to watch birds will not have been damaged irrevocably.

It was a bit early in the year to see many plants in bloom but on our return to our cars we found the wee flowers of the Field Pansy *Viola arvensis*, which gave us delight.

Postscript Helen Slater brought with her a small cutting from a shrub she found at the Hirsell. It has a cluster of yellow fragrant flowers. My guess was that it was a species of Ribes unknown to me. Talking with Mary Robertson during the walk, she suggested it might be Buffalo Currant *Ribes odoratum* which is only to be found, as far as she knows, at the Hirsell. When I checked it out in Stace, it was indeed this plant. Thanks, Mary. A fortnight later we had the chance to see it at the Hirsell.

Mary Tebble

THE HIRSEL

Date 26th April
Leader Mary Robertson

Fourteen members of ENHS enjoyed a sunny day at the Hirsell where everything looked fresh in new spring green after the previous day's rain, the first for several weeks. Reported to be the warmest April on record, it was not surprising to find that the Daffodils beside the drive were past their best, though the Few-flowered Leek *Allium paradoxum* on the left of the entrance had multiplied alarmingly and was flourishing.

The first Swallows were seen at the Information Centre where we parked, and Chiffchaff were calling. We saw few birds except for the Nuthatches, and an armada of Goosanders on the Hirsell Lake in the afternoon, one group counting 82. These birds come in to roost from the Tweed.



NUTHATCH

We started off along the east end of the lake, passing the very large Yew bush which is actually made up of a clump of 17 trees. We then branched right to the walled garden where a large Red Cedar *Thuja plicata* is found. Many young trees have been planted in the shelter of the wall: a Tulip tree, Walnuts, a Purple Norway Maple, Cherries, a Willow-leaved Pear *Pyrus salicifolia*; a beautiful White Birch *Betula papyfera*; and a pretty Snowdrop tree *Helesia monticola* just opening its flower buds. We continued round the walls and came to the locked gate and so could only see from a distance the huge old Tulip tree *Liriodendron tulipifera* which dates from 1742. The garden is now used by the estate as a tree nursery.

At the SE corner we stopped at the ancient Sycamore, possibly the oldest in Scotland, having been planted in 1513 after the Battle of Flodden. It is held together by stout wires and chains.

There is a variety of splendid mature trees, mostly broad-leaved, in the Hirsell, as well as many ornamentals, mostly Maples, Cherries, Whitebeams and Apples. A number of these were donated to Sir Alex Douglas-Home on his retiral from the House of Commons. More delicate small trees and shrubs are found close to the south and west walls of the garden; these include Camellias, Magnolias and Azaleas.

The ha-ha wall at the bottom of Hirsell House lawn was interesting. We found Meadow Saxifrage *Saxifraga granulata*, Field Wood-rush *Luzula campestris* and Hedge Bedstraw *Galium mollugo*. In the shrubbery further along we found the uncommon Buffalo Currant *Ribes odoratum* with its scented yellow flowers. During the day we noted other *Ribes* species: Flowering, Red, Black and Mountain Currants as well as Gooseberry *Ribes uva-crispa*.

After lunch the party moved through the woodland to cross the bridge over the Leet Water, a tributary of the Tweed which it joins at Coldstream. A carpet of Primroses *Primula vulgaris* and Wood Anemones *Anemone nemorosa* looked lovely in the sunshine, and there were Cowslips and Water Avenas. Other interesting plants were Greater Pond Sedge *Carex riparia*, Sweet Woodruff *Galium odoratum*, Sanicle *Sanicula europaea* and Dog's Mercury *Mercurialis perennis*, as well as Bluebells of doubtful provenance. Butcher's Broom *Ruscus aculeatus*, Field Maple *Acer campestre*, and a Dawn Redwood *Metasequoia glyptostroboides* were noted, and we saw White Butterflies, a Peacock and Orangetips. The 'star' find however was wild Tulips *Tulipa sylvestris* seen at the Lady Bridge where we recrossed the stream. We walked uphill behind Hirsell House. A Giant Sequoia stands in the private grounds.

We then went along the west side of the lake where most of the *Ribes* species are found, and came to Dandock Wood, famous for its Rhododendrons and Azaleas. We viewed Mallard, one Pochard, Little Grebe and Tufted Duck from the hide beside the lake, as well as Goosanders. Mary Tebble produced a good bird list: Reed Bunting, Willow Warbler, Blackcap, Jay, Song and Mistle Thrushes, a Treecreeper, Long-tailed and other members of the Tit family, and Goldfinch, most of which I had missed! We enjoyed a welcome tea at the restaurant before we left. It was an enjoyable outing, the first of our 2003 season.

Mary Robertson

PS I have just looked up my record of our last visit to the Hirsell and guess what? It was 26th April too, in 1997. MR

ARDMORE POINT

Date 3rd May
Leader Ian McCallum

This was a combined outing of the Edinburgh and Glasgow Natural History Societies. The bus from Edinburgh stopped at Safeway supermarket in Dumbarton for a comfort-plus-coffee stop, then continued to Ardmore Point where permission had been given to park in the private driveway.

The party comprised 22 Edinburgh and 11 Glasgow members who were given a short talk on Ardmore. Geographically, Ardmore is a tombolo, which was an island and now is joined to the mainland by a shingle bar. Ardmore is an SSSI because of the interesting geology, and especially the 'unconformity'. Upriver on the Clyde there is Dumbarton Rock, which is a volcanic plug of the Lower Carboniferous age. Ardmore is composed of Old Red Sandstones of the Devonian age, and the unconformity was considered to occur between the Lower Old Red Sandstone and the Upper Old Red Sandstone. Recent thinking suggests that the unconformity is a local event within the Lower Old Red Sandstone. Other geological features which are located in the conglomerate and sandstone beds are a faulted anticline, a plunging syncline and sand dykes.

It is thought that Ardmore was a Roman naval base for the construction of the Antonine wall. Upstream, the Clyde at that time could be forded at Dumbuck, which prevented ships navigating further.

The party started off and walked round the Point in a clockwise direction. There were flowers in abundance. A very common plant on the point is the Sea Radish *Rapianus rapianistrum* ssp. *maritimus*.

Whorled Caraway *Carum verticillatum* which is local in west Britain, and Giant Hogweed *Heracleum mantegazzianum* were also found. Jackie Muscott prepared a detailed list of the plants.

We stopped at the remains of a jetty from which a ferry used to ply across to Port Glasgow. Most of the winter-visiting Grebes and Divers had left the area but we had 6 sightings of Whimbrel, although we missed the first winter Mediterranean Gull which was reported on the SOC grapevine. Terns were seen, together with Whitethroat, Willow Warbler, Robin, Chaffinch, Greenfinch and Blackcap, in addition to waders, ducks, etc. The area is very varied and we covered coastal, marsh, arable, moorland and woodland habitats.

Butterflies were common - mostly Orangetip, Small Tortoiseshell and Green-veined White. From the trig point the glacial features of the area were pointed out: to the north the U-shaped valley of Glen Fruin, the terminal moraine at Rhu, the wave-cut platform, the raised beach and the relic sea cliffs. Thirty years ago, near the trig point, there

was a deep freshwater pool with dragonflies, frogs, water plants etc. Due to natural succession the pool has disappeared. Ardmore Point was made an SWT Reserve under agreement in 1966, but the agreement has now lapsed. Should it again be managed as a reserve, one of the first tasks should be to re-excavate the pool.

Lunch was taken at the north promontory where it was hoped that the fish yair would be viewed.

Unfortunately the tide was up and the yair was not visible! However, the turf was brightened with the bright blue of Germander Speedwell *Veronica chamaedrys*. The Noble family, who were the previous owners, farmed the coastal waters for Salmon and Herring using yairs that allowed the fish to pass over the yair or dam, but as the tide fell they were trapped. They could then be netted or speared. This was before the industrialisation of Glasgow, with the subsequent pollution of the Clyde. The circle has turned and the Clyde is once again host to Salmon, Humpback Whales etc.

The party visited the relic sea cliffs and an Iron Age rock shelter, which was excavated in 1958, revealing a twelve-inch occupational deposit consisting mainly of limpet shells and carbon deposits. This is an area of mature woodland carpeted with Wood Sorrel *Oxalis acetosella*, Wood Anemone *Anemone nemorosa* and Wild Hyacinth *Hyacinthoides non-scripta*. On the cliff face there were substantial clumps of Hart's Tongue Fern *Asplenium scolopendrium* and Golden Saxifrage *Chrysosplenium oppositifolium*.

The parties returned to their transport about 15.15 hours. Hopefully, when the Societies return to Ardmore it will once again be a Wildlife Reserve.

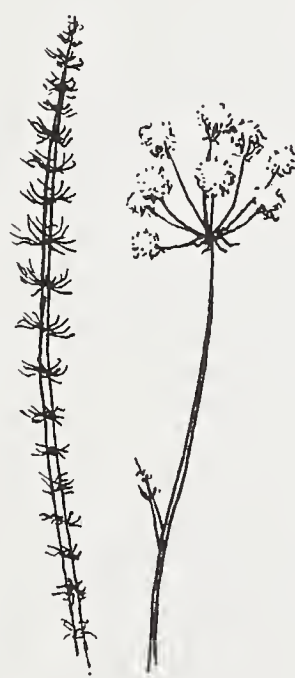
Ian McCallum

PENCAITLAND

<u>Date</u>	10th May
<u>Leaders</u>	Betty Smith and Lesley Fairweather

A group of 14 set out to listen for bird song in a small area between Pencaitland and Ormiston, taking in the 'Big Wood', now privately owned, as well as part of the railway walk.

The rhythmic song of the Chiffchaff started the walk in fine fashion, but the Song Thrush was too busy preening to give more than a few repetitive notes. The Robins were in full fettle, keeping up with the Chaffinch and later the Blackcap. The 'Glasgow accent' used as a help in identification of the Blackcap song raised a few eyebrows with those having West of Scotland ancestry! The mature



WHORLED CARAWAY

trees of Fountainhall were much admired, and while looking upwards the first Swift of the season was encountered. Some people were quick enough to see the elusive Treecreeper on the way to Ormiston 'Big Wood', where the trees are younger, around 50 years old. An area of cleared Sitka was reached and the recent planting of a thousand Oaks duly admired. This opening up of a previously dark and sterile area allowed good views of two Buzzards soaring upwards and calling to each other, and the fly-past of two Bullfinches giving their plaintive calls to one another.

This whole area has always been associated with coal, and in the 18th century the surface coal was removed by digging down and throwing up the earth so that a high-sided hole was left, leaving a series of 'bell pits'. Some of these pits have filled with water and, where light has been allowed in and the water filled with oxygenating plants, wildlife has returned in full force.

Betty Smith, an expert in pond life, was able to show the party a male and female Palmate Newt, along with larvae from the Large Red Damselfly *Pyrrhosoma nymphula*. As we walked into a Birch-Pine area two competing Goldcrests could be heard giving their high-pitched, winding-up-engine song. A second rendering was enjoyed in the Norway Spruce area, and there were Coal Tit calls too. A stack of Sitka Spruce logs gave a good base for a picnic stop, the smell of the resin providing a wholesome ambience.

A shower sharpened up the lunch break and as the group headed across the field, two Grey Partridges flew up from the hedge. Willow Warblers came into their own in the next bit of woodland, intermingled with Goldcrests, Wrens and many of the Tit family, including a Long-tailed Tit at the start of the railway walk. Whitethroats were the next excitement and were picked up quickly by those who had visited Ardmore the previous week. The 'scratchy' song was clearly heard and they came with us for part of the time. A handsome male Yellowhammer perched proudly for all to admire, and Orangetip Butterflies were also attracting attention. The botanical highlights were clumps of Townhall Clock *Adoxa moschatellina*, pink Wood Sorrel *Oxalis acetosella* and white Pink Purslane *Claytonia sibirica*.



YELLOWHAMMER

With many experts in the group it was pure pleasure to discuss various ways of remembering bird song and calls. Some thought in musical terms, others in words such as 'chick' for the Yellowhammer call and 'chink' for the Chaffinch.

Others were helped by pictures such as a pair of bellows helping the two-tone song of the Great Tit.

Nothing can beat being out in the countryside, listening and learning, and the 10th of May was just the right day.

Lesley Fairweather

FLOTTERSTONE PENTLAND HILLS REGIONAL PARK

<u>Date</u>	17th May
<u>Leader</u>	Victor Partridge

The beauty and the wildlife diversity of the Pentland Hills is due to the wide variety of land use. The main use - sheep farming - has produced dry-stane-dyke enclosed, improved fields, surrounded by unimproved grassland and moorland. There are ten reservoirs within the Regional Park, to supply Edinburgh's water. The requirement to train troops means that the MOD land is managed to produce the widest variety of habitats - woodland, gorse-covered areas and open moorland. Other landowners have an interest in shooting, which is the only reason why the heather moorland has remained - to produce habitat for the grouse; and small woodlands have been planted for pheasants.

The walk took us through areas owned by three of the main landowners in the Park: the University of Edinburgh (leased by the Scottish Agricultural College), Scottish Water and the Ministry of Defence.

The previous night I had set up a moth trap, but it rained most of the night and only three species were caught: Lunar Thorn, Flame Shoulder and Hebrew Character (wonderful names moths have!). A burying beetle *Necrophorus humator* was also attracted to the light. We later saw the Flame Carpet Moth.

Most of the woodland around Flotterstone was planted on what is now Scottish Water land, after the reservoirs were completed. Willow Warblers were heard almost constantly as we walked through these woodlands. Several Marble Galls were found under an Oak tree, all cracked open, presumably by a hungry Grey Squirrel looking for an *Andricus kollari* larva to eat. Glencorse Burn, flowing out of Glencorse reservoir which supplies water to Edinburgh, is very clean and anyone looking in the still pools can see Brown Trout darting about.

We followed the burn to the waterfall - the overflow of the reservoir - where we got good views of a pair of Dippers and a Grey Wagtail.

We watched the constant comings and goings of a pair of Starlings feeding their young in a hole in a Scots Pine, while we fed ourselves.

On the bank of Glencorse reservoir was a Common Sandpiper which must have been particularly annoyed at something, as it was extremely noisy. The resident 'sensible' Greylag Geese made an appearance. These twelve adults stay to breed in the Glen rather than flying the hundreds of miles back to Greenland.

As we went onto MOD land, there seemed to be a flock of Buzzards overhead. Only five or six years ago, you would be lucky to see a single Buzzard in the Pentland Hills. They like the army ground, as ironically (with all the shooting that goes on) there is a large population of Rabbits - food for Buzzards. A sad discovery of the head of a very young Fox cub started a debate about whether the decapitation was caused by a raptor or by the farmer carrying out 'pest' control.

The MOD have been working with the Pentland Hills Ranger Service, Butterfly Conservation and the Scottish Agricultural College to improve habitats for the Green Hairstreak Butterfly. An area has been fenced off to stop sheep and rabbits grazing the Blaeberry - the food plant of the caterpillar. It is hoped that this beautiful rarely-seen Butterfly will colonise the new area.

Victor Partridge

GULLANE

Date 24th May
Leader Margaret Watson

We met in the car park to be greeted by the song of Whitethroat in the bushes. Then, before setting out, Margaret explained how Gullane Bay was a very different place from the one she first knew. Pre-Second World War the area all around the bay was pure dune. It then became a restricted area and was reshaped for use as an exercise ground for the Forces, where they reputedly practised landing techniques. Once that phase was over, Sea Buckthorn *Hippophae rhamnoides* was planted to stabilise the dunes. This has now formed thickets in places and there has been some effort made to thin it out. So over the years an utterly changed habitat has been established.

Our route was to be an approximate figure of eight, starting eastwards along the back of the dunes. It was a day of wonderful cloud formations but unfortunately some nasty grey patches produced rain during the early part of our walk.

As we set off, Terns were diving and as well as the Whitethroat there seemed to be a fall of Sedge

Warblers. Willow Warblers calling and Chiffchaff in the background. Along the way we found Spring Beauty *Claytonia perfoliata*, Common Vetch *Vicia sativa*, Bittersweet *Solanum dulcamara*, Bur Chervil *Anthriscus caucalis*, some very tiny Northern Marsh Orchid *Dactylorhiza purpurella*, and Common Whitlow Grass *Erophila verna*.

Turning inland to head back towards our lunch spot at the car park we added Green Alkanet *Pentaglottis sempervirens*, Star of Bethlehem *Ornithogalum umbellatum*, Cowslip *Primula veris*, Ox-eye Daisies *Leucanthemum vulgare*, Field Mouse-ear *Cerastium arvense*, Bulbous Buttercup *Ranunculus bulbosus*, Hairy Tare *Vicia hirsuta*, Goatsbeard *Tragopogon pratensis* and Smooth Hawksbeard *Crepis capillaris*.

For a while some of the party spent considerable time on their hands and knees. Where a new sewage system has been installed, regeneration is still at an early stage. On bare patches all kinds of tiny treasures were found, including Thyme-leaved Sandwort *Arenaria serpyllifolia*, Wall Speedwell *Veronica arvensis*, Spring Vetch *Vicia lathyroides* and Early Forget-me-not *Myosotis ramosissima*. Earlier on we had been examining two other small plants, both *Cerastium*, to add to Common Mouse-ear *C. fontanum* and the large-flowered Field Mouse-ear *C. arvense*. A hand lens is useful when comparing Little Mouse-ear *C. semidecandrum* - 5 petals and bracts with white edges near the top, and Sea Mouse-ear *C. diffusum* - 4 petals and bracts leaf-like.

After lunch in comfort, at picnic tables sheltered from the wind, we set out westwards. We were pleased to find Yellow Figwort *Scrophularia vernalis* but not happy to see nearby leaves of Giant Hogweed *Heracleum mantegazzianum*.

On the top of the cliffs alongside the golf course there were colourful displays in the shorter grass, with some beautiful 'rock gardens' near the edge. Among the plants in this area were: Purple Milk-vetch *Astragalus danicus*, Mouse-ear Hawkweed *Pilosella officinarum*, Lesser Meadow Rue *Thalictrum minus*, Fairy Flax *Linum catharticum*, Thrift *Armeria maritima*, Eyebright *Euphrasia* sp., Milkwort *Polygala vulgaris* and Cotoneaster *Cotoneaster horizontalis*. And there was a strange Whitebeam with two distinct leaf shapes, recorded as *Sorbus intermedia* in *Plant Life of Edinburgh and the Lothians*.

By the time we approached the edge of the Aberlady Reserve the sun was shining. There was a pair of Linnets flying about, and Cormorants on the rocks. A stroll along the shore produced Sea Sandwort *Honkenya peploides*, leaves of Scots Lovage *Ligusticum scoticum*, Common Scurvy Grass *Cochlearia officinalis*, Sea Rocket *Cakile maritima*,

Sea Plantain *Plantago maritima* and leaves of Rest-harrow *Ononis repens*. Six-spot Burnet Moth chrysalids were found on grass stalks near their food plants, Birdsfoot Trefoil *Lotus corniculatus*. And where years back one sprig of *Rosa rugosa* appeared, there is now an extensive patch.

Although reluctant to end the outing, the party gradually dispersed and we made our way along the shore back to Gullane. Thank you, Margaret, for another good day.
Lyn Blades

HERMITAGE of BRAID

Date 28th May
Leader Margaret White

The present mansion house in the Hermitage was completed in 1785 - architect Robert Burn - and around this time the avenues and lawns were laid out and many trees were planted. An Edinburgh merchant, John MacDougal, purchased the house in 1937 and on June 10th, 1938 he presented the Hermitage to the citizens of Edinburgh.

28th May turned out to be a showery day but fortunately in the evening the heavens relented, the rain ceased and the walk was pleasantly dry under the thick canopy of leaves. We took the path on the north side of the Hermitage. This path runs alongside the burn before climbing up to the higher track round Blackford Hill. It is presumed that the castle of the Fairlies of Braid once stood on the crags but no trace of it is now visible. We did, however, pass a large dovecot, the second largest in Edinburgh with 1965 boxes.

It was an interesting path botanically, with many flowers, ferns and trees being found and identified. Of much interest were clumps of Fringe Cups *Tellima grandiflora*, Violet Anther Smut* on the flowers of Red Campion *Silene dioica*, and a great amount of Wood Sanicle *Sanicula europaea*, some plants of which had very large leaves. Where the ground levels out at the top there are many garden escapes, and an area there is almost completely given over to Solomon's Seal *Polygonatum x hybridum*.

It was a wonderful evening for birdsong. The Song Thrushes sang their loudest for us, and many other calls were recognised. From the track along the side of Blackford Hill we dropped down to the bridge over the burn, and walked slowly back on the lower path to the Braid Road entrance. The Hermitage had proved to be a popular choice for the large turnout of members.

Margaret White

* See Page 14



NORTH ESK VALLEY to CARLOPS

Date 31st May
Leader Mike Jones

After a brief history of Carlops from Mike Jones we headed up alongside the burn to the North Esk Reservoir. 'Headed up' is probably a bit enthusiastic, as 'ambled' and 'drifted' are probably more accurate descriptions, considering that the excursion spanned six and a half hours! The morning started off cloudy but the sun made an appearance in the afternoon. On this occasion the group stayed together very well, as there was an abundance of botany in the valley and along the edge of the burn which captured our attention, providing much discussion and sharing of information from the group members and from Mike.

There were countless subjects to admire and study, in fact 200 in total, meticulously recorded by you-know-who. There was a variety of plants, grasses, sedges, rusts, beetles, spiders, butterflies, damselfly, mayfly, frogs and tadpoles to be found in the diverse dry and marshy land with seven uncommon plants noted here: Mountain Everlasting *Antennaria dioica*; Common Rockrose *Helianthemum nummularium*, Fairy Flax/Purging Flax *Linum catharticum*, Moonwort *Botrychium lunaria* (7 plants), Large Bittercress *Cardamine amara*; Butterwort *Pinguicula vulgaris* and Hairy Stonecrop *Sedum villosum*.

Along the way Mike outlined the habitat work that he does on the valley and the reservoir. The valley and reservoir are also habitat to a number of birds, some of which we saw being: Buzzard, Meadow Pipit, Dipper, House Martin, Oystercatcher, Curlew, Tufted Ducks, Swans with 5 cygnets, and the islands were home to a colony of nesting Black-headed Gulls. After we had a much needed lunch at the dam end of the reservoir, Mike continued the excursion round the reservoir. A splendid day was enjoyed by everyone with plenty to talk about on the return walk down the track to Carlops car park.

On the southern end of the reservoir we discovered a strange beetle - See Observations 31/5.

Grace Jamieson

ST. ABB'S HEAD

Date 7th June
Leader Kevin Rideout

On a bright, sunny day with a strong wind blowing off the land, we were warned by our leader not to venture too close to the edge of the cliffs, in our anxiety to view the bird colonies there. Kevin, who led our last excursion to St. Abb's in 1997, knows the landscape and its wildlife intimately, having been Ranger in this National Nature Reserve for some 17 years. On the way to the cliffs we stopped for a while at a small copse to listen to the call of a Song Thrush, to view a Yellowhammer, and then a Spotted Flycatcher sheltering on a fence below the trees. Numerous House Martins, distinguished by their white rumps, flitted around the sky. The seabirds were nesting in their accustomed habitats on the cliffs, with Shags at a lower level, Guillemots, Razorbills and Kittiwakes occupying crevices on the cliff face, and Fulmars and Puffins on the higher grassy ledges. Guillemots were most in evidence, outnumbering the Razorbills by some twenty times. Large flocks of Guillemots were sunning themselves out at sea, leaving their partners to their nesting duties. It was still too early in the year to see the few Puffins that regularly nest at St. Abb's. We looked in vain for Minke Whales, which have been sighted off the coast in recent years, but did spot some black heads bobbing in the cove at Pettico Wick. On closer inspection, it emerged that these were scuba divers, not seals!

The practice of enclosing a section of a west-facing hillside to protect the population of Common Rockroses *Helianthemum nummularium* from grazing sheep was proving successful, in that the enclosed plants were showing more vigorous growth than those on the adjacent hillside. Rockroses are the sole source of food for the caterpillars of the rare Northern Brown Argus Butterfly. Though no butterflies were evident in the enclosure, we were fortunate to see several on a nearby sheltered hillside, displaying their distinctive markings of a small, white spot at the end of each dark brown forewing. In fact, it was a good day for butterflies. Sightings were made of the Common Blue, Small Copper, Painted Lady and Green-veined White.

In general, the Nature Reserve is at its best at this time of year, the grassy slopes being carpeted with Thrift *Armeria maritima* in full bloom, the pink interspersed with the yellow of Birdsfoot Trefoil *Lotus corniculatus*, and hints of blue from the Thyme *Thymus polytrichus*. Later on, patches of Scarlet Pimpernel *Anagallis arvensis* brightened the road downhill towards the cove. Amongst the plants of note were some Early Purple and Heath Spotted Orchids *Orchis mascula* and *Dactylorhiza*

maculata. Northern Marsh Orchids *D. purpurella* were numerous along the edge of the Mire Loch. A little detective work was required to locate 3 specimens of Spring Sandwort *Minuartia verna*, to the delight of the searchers.

A spectacular backdrop to the scene was provided by the rock formations of the towering cliffs along this part of the Berwickshire coast. The layering of the sedimentary rocks and the way they have been tilted by geological forces was clearly visible looking westwards from Pettico Wick. These rocks are separated from the more durable volcanic rock of the headland by the St. Abb's Head Fault, which runs along the valley of the Mire Loch.

Tea at the Visitor Centre completed a satisfying day in the country.

Margaret Perry

HARLAW RESERVOIR

Date 11th June
Leader Christine Rae

Harlaw Reservoir, along with Threipmuir-Bavelaw, was constructed in the mid 19th Century to serve as a compensator to keep the Water of Leith mills running during dry periods. Today, it still serves the same purpose (without the mills), but additionally, in winter the water level is now kept low in order to accept flood water when necessary. A full 30% of the volume of the Water of Leith passes through Harperigg-Threipmuir-Harlaw! The water level was low enough on this occasion to let us see quantities of Pea Mussels without getting our feet wet.

It was a fine evening and the assembled party went a-botanising round the Reservoir, clockwise from the Ranger Centre. Among the plants spotted were Yellow Rattle *Rhinanthus minor*, Bitter Vetch *Lathyrus linifolius*, Slender St. John's Wort *Hypericum pulchrum*, Shoreweed *Littorella uniflora*, Marsh Cinquefoil *Potentilla palustris*, Fairy Flax *Linum catharticum* and Burnet Saxifrage *Pimpinella saxifraga*.

Sedges found were Common Sedge *Carex nigra*, Glaucous Sedge *Carex flacca*, Yellow Sedge *Carex viridula*, Oval Sedge *Carex ovalis*, Carnation Sedge *Carex panicea* and Bottle Sedge *Carex rostrata*. Common Spike-rush *Eleocharis palustris* was also present.

Willow Warblers and two Redpolls were heard if not seen, and in the Fungi department we did find a fine *Amanita rubescens*.

One small, yellow flower attracted attention and was identified (wrongly) at the time as Creeping Yellowcress *Rorippa sylvestris*. However, Mary Clarkson wondered whether it might be the much less common Northern Yellowcress *R. islandica*, and made the point of returning later with Jackie Muscott who was able to identify it as such.

The fishing concession for Harlaw Reservoir is held by Malleny Angling Association. The Association re-stocks with 1.5 lb. Rainbows every two weeks, but on this evening one of the anglers had an unexpected catch, namely this writer, who had to suffer the indignity of removing a fishing hook from the seat of his brand new walking trousers!

There was lots of interest in the short time available, and our thanks go to Leader Christine Rae.

John Watson

LAMBERTON

Date 14th June
Leader Michael Braithwaite

A party of 15 enjoyed a glorious day on the coast between Burnmouth and the English border. As we crossed the A1, Grass-leaved Orache *Atriplex littoralis* was noted as a recent colonist in the salt-sprayed verge. Down a lane the plant-of-the-day, Wood Vetch *Vicia sylvatica*, was soon encountered in profusion, in full flower. Here also a double-flowered Bramble was noted and a number of Painted Lady Butterflies, some very travel-worn. Where we joined the sea braes we enjoyed a superb limestone bank, facing away from the sea, with much Carline Thistle *Carlina vulgaris* and a great variety of grasses, all at their best, including Meadow Oat-grass *Helictotrichon pratense*, Fern Grass *Catapodium rigidum* and Squirreلتail Fescue *Vulpia bromoides*.

After lunch we peered cautiously over the sea cliff to observe two small relict bushes of Juniper *Juniperus communis* before descending a steep bank to enjoy a very species-rich limestone grassland, with Salad Burnet *Sanguisorba minor* and the rare Lady's-mantle *Alchemilla glaucescens*, with superb silvery leaves and a notably dense inflorescence. Here too were grasshoppers and butterflies, mainly Common Blue and Small Heath. A separate descent past a strong colony of Purple Milk-vetch *Astragalus danicus* took us down to an old landing stage with Sea Spleenwort *Asplenium marinum* in clefts in the massive Old Red Sandstone. A final descent was made to a flush with a profusion of Common Butterwort *Pinguicula vulgaris* in fine flower. Upright Brome *Bromus erectus* was encountered by the railway, looking confusingly like *Helictotrichon* but with the awn arising from

the tip of the lemma rather than its back. After crossing the railway bridge, Corn Marigold *Chrysanthemum segetum* was enjoyed in an arable edge.

Michael Braithwaite

MAIDENCRAIG & RAVELSTON WOOD

Date 18th June
Leader Mary Tebble

The only clue I could find on my street map as to where we might be walking was a quarry, so I was intrigued by what we might find in the vicinity of Maidencraig Crescent. On her recce for the walk Mary found a lot of fast, silent bicycles, so not wanting to lose any Nats to the cyclists she decided we would be safer in nearby Ravelston Wood. Several of us would not have thought to walk through the imposing gateway into this secret island of mature woodland had we not been led. We were pleased to be introduced to a new area and excited by the different types of terrain and the variety of plants found.

Silence fell as we gingerly peered over the sheer drop of the quarry face and gazed at the view over the Forth. Mainly though, there were exclamations of curiosity and delight whenever there was a new find. An immature Douglas Fir cone, sweet smelling and resinous, glowed with pinks and greens, and the 'rabbit faces' were long and slender. Further on, the ground was strewn with slender curving stalks of the sterile fruits of a Poplar, each ragged ball of cotton emerging from a tiny fluted woody cup. Paired Sycamore seeds (some in threes) were scattered over the ground, the more mature coloured rich tomato red and lime. Still-closed heads of Crow Garlic *Allium vineale* were spotted where they emerged in a swathe from the grass in a more open part of the site.

Jackie demonstrated how we can use the scales on the stems of ferns, and the number of branchings of the pinnae to identify them. We examined the crimped stalk of the Wavy Hair-grass *Deschampsia flexuosa*, then there was some talk about Yorkshire Fog *Holcus lanatus* having striped socks, and something else having hairy knees! Better not ask what.

By the pavement on the way back to Maidencraig Crescent we saw Alsike Clover *Trifolium hybridum*, easily compared with the White Clover *Trifolium repens* growing beside it. A rust on the Groundsel *Senecio vulgaris* nearby had apparently been picked up originally in Australia by a Groundsel imported from Britain. The rust then made the journey back to UK possibly on a fleece! One of these stories which made me really stop and think!

The cycle traffic now having diminished, we braved the walkway in single file - well some of the time - under the watchful eye of Mary - to search for Warty Cabbage *Bmias orientalis* and examine the tiny warts on the seed cases. We also found sweet-scented Rayed Tansy *Tanacetum macrophyllum*, a garden escape, and a hybrid *Sorbus* with some entire leaves and some pinnate.

So in the end we did very well. We explored part of the walkway to Ravelston Wood and Mary brought all the Nats safely back to the starting point after a really enjoyable evening.

Oh, and I had to stop the car before leaving Maidencraig Crescent to allow a young urban Fox to cross the road!

Lyn Corrie

EARLSFERRY

Date 28th June

Leader Lyn Blades

The weather news at 7am was not good, with rain in Edinburgh and a speed restriction on the Forth Bridge due to fog. Surely there was not to be a repeat of last year! The Nats are for ever optimistic, so ten stalwarts set out for Fife and were rewarded with a day of sunshine.

We started on the plants with umbels by the roadside, where Cow Parsley *Anthriscus sylvestris* and huge plants of Alexanders *Smyrnium olusatrum* were in fruit, and added Hogweed *Heracleum sphondylium*, Upright Hedge Parsley *Torilis japonica*, Hemlock *Conium maculata* and Bishop's Weed *Aegopodium podagraria*. The last, although a garden pest, does have a very attractive round flowerhead. The much rarer Scots Lovage *Ligusticum scoticum* was in splendid form on the rocky shore, and later on Burnet Saxifrage *Pimpinella saxifraga* was spotted on the slope near Kincaig.

Then there were the Champions: Bladder Campion *Silene vulgaris* by the roadside; Sea Campion *Silene uniflora* on the rocks by the sea, plus Red Campion *Silene dioica* in all shades of pink.

As we walked along the top of the cliffs we disturbed a crèche of 21 Mergansers which glided out from a rocky inlet.

The saltmarsh down below produced Sea Sandwort *Honkenya peploides*, Sea Milkwort *Glaux maritima* and Lesser Sea Spurrey *Spergularia marina*.

It has been a very early season; on our way along the edge of the golf course we found hips already formed on the Burnet Rose *Rosa pimpinellifolia*, Harebells *Campanula rotundifolia* in flower, and buds on Rosebay Willowherb *Chamerion angustifolium*. Among the plants still in flower were Hoary Cress *Lepidium draba*, Bloody Cranesbill *Geranium sanguineum*, Lesser Meadow Rue *Thalictrum minus*, Greater Knapweed *Centaurea scabiosa*, Agrimony *Agrimonia eupatoria* and Common Rockrose *Helianthemum nummularium*.

Our goal was to reach the rocks by Kincaig Point where we aimed to have lunch and to inspect two of the very rare plants which grow in this area. Only one plant of each appears to be surviving on a sheltered part of the shore. The Sea Kale *Cranibe maritima* was looking healthy with lots of round seed pods, and the Yellow Horned Poppy *Glaucium flavum* had produced a couple of flowers; one seed pod was formed and several flower buds were still to open. It is interesting how these plants manage to hang on, flower and produce seeds, but conditions seem never to be right for the seeds to germinate and produce new plants. Perhaps the seeds are just not viable anyway.

The weather made it a good day for butterflies too - Green-veined White, Meadow Brown, Painted Lady, Red Admiral, Ringlet, Common Blue and Northern Brown Argus (on the bank near the Rockrose) - and a Six-spot Burnet Moth.

As well as Mergansers there were Terns over the water, Stonechat and Reed Bunting among the bushes, Skylark overhead, and a pair of Fulmars nesting on a rock above our lunch spot.

After our walk in the sun, tea at the Pavilion by the tennis courts was most welcome.

Lyn Blades



21 MERGANSERS GLIDED OUT FROM A ROCKY INLET.

STRAITON POND, MIDLOTHIAN

Date 2nd July
Leader Jo Rockingham,
Midlothian Ranger Service

On a pleasant sunny evening Jo outlined the history of Straiton Pond. The pond was originally a clay pit used by local industry. As industry declined and moved on, the clay pit was left untended. The surrounding area was also neglected and left to deteriorate, resulting in the pit filling up with water and becoming polluted. That was until the 1970s when clearing and monitoring of dumped rubbish began. By dint of hard work to ensure that no more was dumped, the pond and surrounding area regenerated naturally, without human intervention. Now the Midlothian Ranger Service manage the site, with a development programme to attract birds and wildlife.

Due to careful monitoring of the area an interesting find had been made along the verge of the track - Earthstar fungus was found last year. Hazel, Oak, Rowan and the hedgerows along the track attract many bird species, in particular Bullfinches, and we were delighted to see Wren, Yellowhammer, Robin and, overhead, a Buzzard. A leisurely walk round the pond revealed natural plantations of Reed, Lady's Smock/Cuckoo Flower, Lesser Spearwort, Watercress, Bulrush, Amphibious Bistort, Mare's Tail, Water Forget-me-nots, Water Lilies, Bottle Sedge, Iris, Common Duckweed and Ivy-leaved Duckweed. There was an Oystercatcher at the pond, and the Bulrushes acted as hiding places for the Mallards, Coots and baby Toads and Frogs as we walked by. There were even a couple of fishermen trying their luck in the depths.

On the approach to the wood a patch of Common Spotted Orchid was spied in a nearby field. The walk continued through the woodland area where there was Wood Sedge, and meadow flowers too. As the walk came to a close the Pipistrelle Bats were coming out for the evening. Today Straiton Pond provides a habitat for wildlife and birds that nature created to suit their needs; and still more will be attracted in the future, making an interesting and pleasant area for all to enjoy.

Grace Jamieson

SALTOUN ESTATE

Date 5th July
Leader George McDougall & David Adamson

Saltoun Estate in East Lothian has been the home of the Fletcher family since 1643. Andrew Fletcher (1653-1716) achieved fame through his political writings, his opposition to the Act of Union of 1707,

and his introduction from Holland of machinery for sifting grain. Andrew Fletcher's tutor was the parish minister, Gilbert Burnet, who became Bishop of Salisbury and bequeathed 20,000 merks to the parish. The small church at East Saltoun, rebuilt in the early 19th century, has a spire modelled on that of Salisbury Cathedral.

Saltoun was the site of many improvements in the years preceding the Industrial Revolution; the weaving of holland, bleach fields (under the auspices of the British Linen Bank) and a paper mill were some of these. The estate itself lies between Pencaitland and West Saltoun village, being bisected by the Birns Water, a tributary of the Tyne. The land is mainly cattle pasture with some policy woodland. Saltoun Hall was rebuilt in 1820 as the family home and is now divided into flats. Saltoun Home Farm, our meeting place for this excursion, is by the main road to the east of the estate, and is a mixture of farm cottages, the main farm, and outbuildings.

Although our walks in the estate took up the bulk of the day, the lunch break in and around the farm produced much of natural history interest. Tree Sparrows were continually flying to an overhead wire and perching long enough to provide excellent views. A House Sparrow family was nesting in the old home of a Swallow or Martin. House Martins and Swallows were in full song, flitting above and into the farm buildings. Once in a while, Swifts screeched overhead. A hen Sparrowhawk flapped past at some height, tolerating the attention of the wary Swallows.

After a walk to see the Fletcher family's present home, a block of converted stables, we reassembled at the North Lodge for a woodland walk that took us to the confluence of Tyne and Birns Water, then into an ornamental dovecot, and eventually toward the West Lodge. All parts of the estate were visited, apart from the private ground around Saltoun Hall.

Many old plantations have impressive trees but disappointing ground cover. Here the botanical interest was modest, although there was a great variety of grasses. Insects were represented by one Butterfly, a couple of Moths, a Mayfly and a Seven-spot Ladybird. One Brown Hare was the only mammal of note. Any fungi were mainly on dead wood, perhaps the most impressive being *Daedalea quercina*, the Oak Maze Gill, with its labyrinthine pattern of pores.

Twice the farmer encouraged us by promising a dry afternoon. Fate was tempted and the walk ended in very light drizzle. After taking us to Whittingehame, Nunraw, Bara and now Saltoun: there must be few estates left in East Lothian for George McDougall to lead the Nats.

All these have been very enjoyable excursions and I hope George can unlock the gates of another estate for us in 2004.

David Adamson

BONALY

Date 9th July
Leader Janet Watson

On a glorious evening our party headed for Bonaly Reservoir via the west and south sides of the woods, in the hope of seeing birds which had been evident a few days before but, apart from a Willow Warbler, few were spotted. The reservoir was very low, but about 40 species of vascular plants were noted to be growing in the gravel below the normal water line, including Marsh Cudweed *Guaphalium uliginosum*, Shoreweed *Littorella uniflora* and Water Crowfoot *Ranunculus aquatilis* agg.

We circumnavigated the reservoir and saw where the Rangers are creating a habitat to encourage more birds. The only ones we saw there were agitated Lapwings and Swifts skimming over the water.

Janet Watson

LUTHRIE CIRCUIT

Date 12th July
Leader Graham Swift

It's almost exactly 10 years since Graham Swift took a party of Nats round the Luthrie Circuit (see Graham's account on Page 30 of the 1993 Journal). There was about the same number of people, but we were more laggardly since, apart from the plants, there were a number of interesting bugs, butterflies and moths to be chased by the photographers in the party. So we did not make it to Denmuir Farm with its double-chambered doocot, but we did have our lunch at the foot of Denmuir Hill.

The green lane we walked along to Denmuir was very overgrown with nettles, but we saw Wood Meadow Grass *Poa nemoralis*, Tuberous Comfrey *Symphytum tuberosum* and a couple of plants of Yellow Figwort *Scrophularia vernalis*, and there was a good deal of Rough Chervil *Chaerophyllum temulum* around. We heard Buzzards calling and had a good view of a Stoat in a garden at Kinsleith, where a lady was picking redcurrants. She kindly invited us to take some of her gooseberries as she had more than enough; it seems to have been a very good year for soft fruit. Later we saw what appeared to be new Badger setts along the lane.

Lunch time provided a good opportunity to get close to the ground - just as well since identifying the plants on the rocky outcrops was very much a 'hands and knees' job. We found Common Rockrose *Helianthemum nummularium* and Sand Spurrey *Spergularia rubra* but not the Knotted Clover *Trifolium striatum* or the Knotted Pearlwort *Sagina nodosa* noted previously. Indeed the latter may be in error as we did find Heath Pearlwort *Sagina subulata* growing on small rocky outcrops.

Heath Pearlwort grows in small tufts; the petals are just a little larger than the sepals, the flower stalks have tiny glandular hairs and the leaves have a long awn.



HEATH PEARLWORT
SAGINA SUBULATA



Long awns
on leaves



Sticky hairs on stems

By contrast Knotted Pearlwort has larger flowers, the petals twice as long as the sepals, smooth flower stalks, with little knot-like clusters of leaves; and the leaves may be a bit pointed but lack an awn; it grows in damper places and flowers later (usually August).



KNOTTED PEARLWORT
SAGINA NODOSA

Lunch time also provided us with good sightings of Yellowhammers which were singing for most of the day; Linnets and Goldfinches; and later we heard a Green Woodpecker yaffling away. The next part of the walk was through the hills, the upper parts of which were bright with Bell Heather *Erica cinerea*. There were some splendid views, and John Watson found a plant of Stag's-horn Clubmoss *Lycopodium clavatum* on the side of Norman Hill.

Everywhere there were Butterflies, Meadow Browns and Ringlets being the most numerous at lower levels, Small Heaths preferring the higher ground, but we also saw Green-veined Whites, Common Blues, Tortoiseshells, a couple of Painted Ladies and a Red Admiral. There were well-grown Peacock Butterfly caterpillars on some Nettles, and a curious little Weevil *Cionus hortulanus* (or a close relative) which seemed to have decimated some Figworts. According to my insect book the larvae feed 'surrounded by a gelatinous excretion' which presumably accounts for the round grey blobs all over the plants.

After examining an attractive marshy area with a good deal of Sharp-flowered Rush *Juncus acutiflorus*, a variety of sedges, Marsh Speedwell *Veronica scutellata*, Marsh Cinquefoil *Potentilla palustris* and Greater Birdsfoot Trefoil *Lotus pedunculatus* among other acid marsh plants, we made our way back to Lower Luthrie farm, where we had started. Here were two very handsome Simmental bulls in a field, and an extraordinary specimen of Blue Water Speedwell *Veronica anagallis-aquatica* in a ditch. It was fully four and a half feet high. And for those interested in statistics we saw no fewer than 7 species of Speedwell during the trip. A pretty good day out.

Jackie Muscott

CRAIGLEITH QUARRY

Date 16th July
Leader Sarah Arkley and Ewan Hyslop
of the British Geological Survey

A visit to Sainsbury's at Blackhall will never be the same again! Forget the shelves of new-baked bread and baked beans; pick up a RIGS leaflet about Craigleith Quarry from the Information Desk and wander round behind the store to the remains of the quarry. Our evening visit was a joint one with the Edinburgh Geological Society, and was led by two real enthusiasts who explained the geological complexities with amazing clarity.

The quarry was worked for over three hundred years, starting with the extraction of 200 arch stones for Edinburgh Castle in 1615, and finally closing in 1942. We all know that much of the New Town was built with Craigleith stone, but I had not realised that its fame was world-wide, having been exported to Europe and North America. Buckingham Palace is built of Craigleith stone. One of Edinburgh's most interesting buildings is the Old College on South Bridge, built in 1823; each of the six pillars at the entrance weighs 9 tons and is made out of a single block of sandstone, which was hauled there from Blackhall by 16 horses. But how did they get the block onto the cart? and off again? and so beautifully shaped?

We were taken on a journey back in time and shown, by an amazing bit of detective work, how the area had at one time been part of a large tropical river system, where the sand deposited has given us the Craigleith sandstone. This sandstone is special because the beds are very thick, allowing for the extraction of very large uniform blocks; and the sandstone itself is very pure, close-grained. The sand grains are mainly of quartz which is very hard and therefore withstands weathering, making it ideal for building material, unlike some of the more open-grained sandstone used for the Bruntsfield buildings which have made the news recently, because of the poor state of the stone.

We were shown fragments of fossil tree roots; sun cracks in mudstone; fossilised plants; fossilised sea creatures in limestone beds; oil shale beds..... and so much more. Not only were we shown these rocks, but we were party to the detective work which has built up geologists' knowledge of the geological history of our area - that we were part of a great tropical river system flowing into a great lake at a time when our wee bit was drifting around in tropical parts.

If you think that's all quite interesting, I can say that it was much more than that. Our leaders were so knowledgeable, well-organised and above all, enthusiastic. Many thanks are due to them for making a difficult subject so easy to understand and enjoyable.

We were given a bundle of notes which cover what we did that evening. If anyone is interested in knowing more, I have them.

Sandra Stewart

INNERLEITHEN

Date 19th July
Leaders Eric and Eileen Perry

There is nothing quite like a walk along the river bank, especially if it's the Tweed.....with the Nats,led by Eric and Eileen, ...on a lovely day, ...in July. We started at the Red Bull car park at Innerleithen and walked along the left bank of the river, giving the mountain bikers on the hill a wide berth. Progress was slow as we admired the flowers - at their summer best; the variety on that stretch of the Tweed is lovely: Meadow Cranesbill *Geranium pratense* was everywhere; Red Campion *Silene dioica*, Monkey Flower *Mimulus* sp., Codlins and Cream *Epilobium hirsutum*, Pale Toadflax *Linaria repens*

HERE IS THE GOOSANDER CRECHE WHICH ERIC SAW EARLIER...



Eric had booked the Goosander with its 20 chicks which sailed down the river on his recce a few days before to reappear for the Nats. However they failed to keep their appointment!

DUNSAPIE

Date 23rd July
Leader Natalie Taylor

At Walkerburn we had to follow the Walker Burn upriver to cross it and on the way back down to the Tweed we came across Sand Leek *Allium scorodoprasum* in full flower. When we arrived at the shingle bank we forgot that it was nearly lunchtime. There was an amazing variety of plants on this small stretch, and for the next hour peace was shattered as we found plants we didn't know - Soapwort *Saponaria officinalis*, Wintercress *Barbarea vulgaris* and Marsh Yellowcress *Rorippa palustris*; plants we were not sure about - Woundwort *Stachys sylvatica*, Marsh Woundwort *S. palustris* and later, the hybrid, *S. x ambigua*, Reed Canary Grass *Phalaris arundinacea*; and Tufted Forget-me-not *Myosotis laxa*; and the old familiars - Lady's Bedstraw *Galium verum*, Crosswort *Cruciata laevipes*, Redshank *Persicaria maculosa*, Pink Purslane *Claytonia sibirica*. We were all enthralled; there was so much in a small area.

We lunched amid the flowers and were entertained by our two young visitors, Jean and Andrew's grandsons. It was so nice to have them with us.

We meandered gently back in the sun to end a charming day - tea and cakes on Eric and Eileen's lawn, the sun still shining a perfect end to a lovely day.

Sandra Stewart

This is an area which many of us thought we knew well. However, we all learned a lot from our leader, one of our own members, whose day-time work is as *Historic Scotland's* Education Ranger for Holyrood Park.

Our route led downhill from the Dunsapie Loch car park across a flushed area where, as the flowers were almost over, we had fun trying to identify grasses, sedges and rushes. Much the most common sedge was Hairy Sedge *Carex hirta* which was growing from top to bottom of the slope. We had no difficulty in identifying this as no other sedge has such hairy leaves and utricles. There was a good assortment of grasses, and I was pleased to see one of my favourites, Yellow Oat-grass *Trisetum flavescens*, a slender yellowish grass which grows on basic soils and whose long awns give it a feathery appearance.

Having negotiated 'Jacob's Ladder', a fairly steep flight of steps, we found ourselves on the shore of Duddingston Loch, which was given a spectacular yellow edge by the Fringed Water-lily *Nymphoides peltata*, an introduced species established here for almost fifty years. As well as seeing a variety of common water birds, we were fortunate to have good views of a little family of Great Crested Grebes, the parents shepherding their three young across to the opposite side of the loch. There is something comical about Herons sitting in treetops and we chuckled as we passed the local Heronry.

On our return to the cars by the upper road above we were shown several ferns including Forked Spleenwort *Asplenium septentrionale* and Wall Rue *A. ruta-muraria*. The most exciting event of the outing occurred on this top road, too, when a car drove along it in the wrong direction! However, our leader dealt with this very sternly in her official capacity. The evening, though cloudy, had been warm and it was almost dark when the tail-enders reached the car park.

Mary Clarkson

TEA ON THE LAWN AT KILCREGGAN, PEEBLES



LOCH MORAIG

Date 26th July
Leader Jackie Muscott

Loch Moraig was our 'alpine' trip for 2003. The loch lies at over 1000 feet at the foot of the Beinn a' Ghlo range of mountains near Blair Atholl, and has a striking view of Carn Liath, the southernmost of these hills. It is a very rich area, with an interesting mix of calcareous and acid vegetation, including some alpine species swept down from the mountains. A fine day is essential and we were very lucky to have warm, sunny weather.

We foregathered at Blair Atholl in order to rationalise cars for the trip up to the loch. Most people arrived in plenty of time, but temptation beckoned in the form of a sale of outdoor clothing at the village hall, and it took some time to prise everyone out of the fitting rooms and back into the cars.

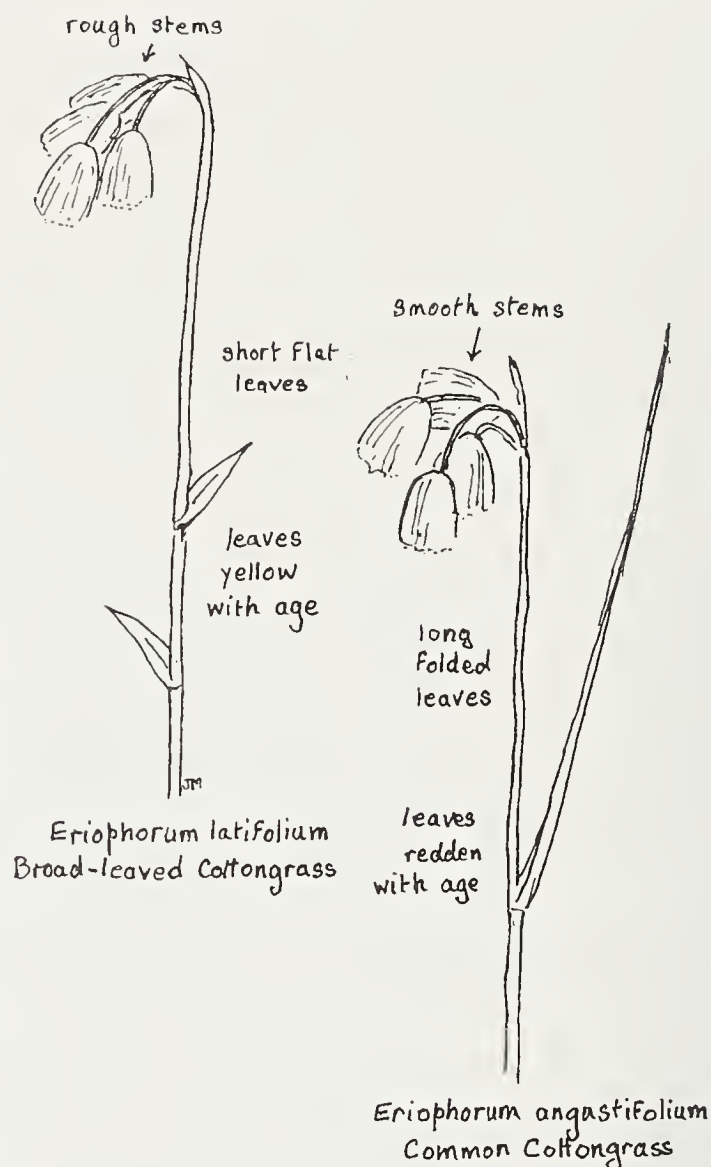
We parked in an old quarry some little distance from the loch, and emerged to a bank of Field Gentians *Gentianella campestris* in full flower. A little short of the quarry an interesting plant turned out to be an 'albino' Tufted Vetch *Vicia cracca* with pure white flowers.

Soon we were walking along the road, noting, on the banks, patches of Common Rockrose *Helianthemum nummularium*, Harebell *Campanula rotundifolia*, Mountain Pansy *Viola lutea* and Kidney Vetch *Anthyllis vulneraria* with scatterings of Alpine Bistort *Persicaria vivipara*, Frog Orchid *Coeloglossum viride* and a few late flowers of Purple Milk Vetch *Astragalus danicus*. Ling *Calluna vulgaris* and Bell Heather *Erica cinerea* added colour to the more acid areas.

Marshes and flushes revealed a variety of sedges. Sneezewort *Achillea ptarmica*, Marsh Marigold *Caltha palustris* in seed, Globeflower *Trollius europaeus* still in flower, and several orchids including the sweet-scented Fragrant *Gymnadenia conopsea*. Again there was contrast between the more base-rich and more acid areas, and the uncommon Broad-leaved Cottongrass *Eriophorum latifolium* growing in the former could be compared with the Common Cottongrass *E. angustifolium* in the latter.

Similarly, Lesser Clubmoss *Selaginella selaginoides* favours base-rich soils while the insectivorous Round-leaved Sundew *Drosera rotundifolia* prefers acid conditions.

Flitting among the plants were a number of butterflies, including the handsome dark Scotch Argus, which emerges towards the end of July.



Rather confusingly, another dark butterfly, the Ringlet, was also on the wing. The Scotch Argus can be recognised by the bright orange patches bearing rings, on the upperside of its wings. The Ringlet has no orange, but a fine white edge to the wings; it too has rings but they are sometimes scarcely visible on the upperside, though conspicuous below when the wings are folded.

We lunched before circumnavigating the loch, which proved to be home to a flock of Greylag Geese which we had seen earlier grazing among the sheep. Also on the loch were a family of Wigeon and Little Grebes with young, while Snipe were disturbed around the edge. At the far end of the loch, below the dam, patches of Yellow Saxifrage *Saxifraga aizoides* enlivened the scene and a number of rare plants were found; the Scottish Asphodel *Tofieldia pusilla* was in seed, but the False Sedge *Kobresia simpliciuscula* was still in flower, though it has to be conceded that to the layman it's not the most exciting of plants.

The Pondweed leaves on the surface of the loch proved to be those of Various-leaved Pondweed *Potamogeton gramineus*, not Broad-leaved *P. natans* which they resemble (the underwater leaves are very different).

A great many Common Blue Damselflies were flitting about by the loch, and we also saw a strange black 'fly' which appeared to have 2 sets of feelers: a black 'handlebar' pair plus long, fine antennae. After examining photographs, I concluded it was a Caddis Fly, as these have conspicuous 'maxillary palps' in addition to antennae. Caddis Flies have short lives as they rarely feed. They lay their eggs in water, and one quite often sees the cases their larvae build of wood, sand, vegetation or small stones.

July is a thin time for birdwatchers but some of the party saw a family of Treecreepers and another of Blue Tits, as well as Goldcrests in a conifer plantation; and we all saw or heard Ravens and Buzzards overhead.

The day ended for most of the party with a convivial meal at Blair Atholl, though some of those who left earlier were rewarded by a sighting of a Red Squirrel; the only other mammal of note was a sheep caught by its horns in a wire fence. We managed to release it and felt we had done our good deed for the day.

Jackie Muscott

MORTONHALL AND BRAIDS CIRCUIT

Date 30th July
Leader Margaret Perry

We set out from the Stable block of Mortonhall Estate for a pleasant evening's stroll through the countryside to the south of the city. The estate is privately owned and is open to the public by way of well-maintained and signposted pathways that criss-cross the area. Following a path westward to Braid Road, we passed through a sombre avenue of trees, Yews, Sycamores and Oaks amongst them. We noticed the huge hips on thickets of *Rosa rugosa* and the profusion of red berries on the Rowan trees. A Great Spotted Woodpecker was perching high on the branch of a dead tree. After about one mile, the trees thinned out, giving way to small clearings of waste ground where earth had been dumped, and opening up views of the Mortonhall golf course. Plant life was prolific on the dumps. Plants in flower included Nipplewort *Lapsana communis*, Fumitory *Fumaria officinalis*, Toadflax *Linaria vulgaris*, Weld *Reseda luteola*, Welsh Poppy *Meconopsis cambrica* and a clump of Enchanter's Nightshade *Circaea lutetiana*. Found growing together in one large cluster were Common Hemp-nettle *Galeopsis tetralix* and Large-flowered Hemp-nettle *G. speciosa*, the latter distinguished by the purple lower lip of its otherwise pale yellow flower.

The route followed Braid Road for a few hundred yards, then entered a public pathway leading along the south side of the Braid Hills. A slight climb

brought us to the Viewpoint where we stopped to admire views of the city, the Forth estuary and the distant hills. Further along, another patch of waste ground yielded Foxgloves *Digitalis purpurea*, Scentless Mayweed *Tripleurospermum inodorum*, Pineappleweed *Matricaria discoidea*, Mugwort *Artemisia vulgaris* and Yarrow *Achillea millefolium*. We wended our way through colourful banks of Rosebay Willowherb *Chamerion angustifolium*, past some young plantations bordering the golf course on the left, onto the road returning through the estate. The excursion ended with the sight of horses grazing peacefully in the fields around Meadowhead Farm in the evening sunlight.

Margaret Perry

SICCAR POINT

Date 2nd August
 For report see Pages 53-54.

PRESSMENNAN WOOD & LAKE

Date 9th August
Leader Neville Crowther

The name Pressmunet meaning 'copse' identified this site as woodland in the mid 12th century. It is also known to have been forested well before the early 16th century, as the warship *Michael* was built at Newhaven from Oak felled here. The wood had also been a source of bark for tanning since the sixteenth century. Thus it seems safe to assume continuity from post glacial times. Landowners in the last century planted many exotic conifers on the southern flanks of the lake. Pressmennan became the site of a serious dispute in the mid '90s between local conservationists and statutory government agencies who supported proposals to fell several hundred Oak trees on the north side of the wood. A consequence of this incident is that the north side of the lake is now closed to walkers. Over eighty hectares on the south side are however now protected as a Woodland Trust Reserve. Along with the nearby Woodhall Dean SWT Reserve, it is regarded by many as the best Sessile Oak woodland in SE Scotland.

The lake is two kilometres in length filling a narrow defile. It was artificially created by damming the dean. Like the many other striking deans of East Lothian, it was originally cut by melt waters in the late-glacial period. During that time run-off from the Lammermuirs was impeded to the north by glacial ice in the 'Midland' valley, and the waters were forced to turn and flow east along the contours. Incidentally along with the Lake of Monteith, it is said to be the only 'lake' in Scotland. Twenty members gathered at the car park, in sun hats and shorts on another baking hot day, most thankful that

we were to be in shade and not planning to walk too far. Some of the Oaks nearby had a variety of galls which included the Common Spangle caused by the Gall Wasp *Neuroterus quercusbaccarum*, Artichoke Gall *Andricus fecundator* and Marble Gall *Andricus kollari*. The lake-side path allowed us access to the marsh at the west end, where a rare Greater Tussock Sedge *Carex paniculata* grew with Meadowsweet, Thistles, Branched Bur-reed *Sparganium erectum* and Willowherbs. We later found a further specimen at the opposite end of the lake beside our lunchtime stop, along with the locally rare Skullcap *Scutellaria galericulata*. Although we had flushed a Woodcock early in our walk, birds were not much in evidence. However a flotilla of Swans, parents and 7 cygnets, kept pace with us for much of our stroll along the bank.



BRANCHED BUR-REED

There was plenty of evidence for the longevity of the woodland in the fine assemblage of ancient woodland indicators, such as Three-nerved Sandwort *Moehringia trinervia*, Ramsons *Allium ursinum*, Wood Sorrel *Oxalis acetosella*, Enchanter's Nightshade *Circaea lutetiana*, Wood and Remote Sedges *Carex sylvatica* and *C. remota*, Dog's Mercury *Mercurialis perennis*, Great Woodrush *Luzula sylvatica*, Hazel *Corylus avellana* and Wood Speedwell *Veronica montana*. A puzzling 'giant' composite 1.5 metres high was identified by Jackie as Wall Lettuce *Mycelis muralis*. A large clearing produced by Spruce felling allowed a short foray into the sunlight. It contained a stand of Creeping Thistle *Cirsium arvense* which had attracted a host of colourful butterflies: dozens of Peacocks, Painted Ladies, Red Admirals, Meadow Browns and Large Whites : the camera shutters were clicking.

The very noticeable algal bloom in the lake was perhaps a consequence of a hot summer with little rainfall. At the east end, drifts of dead Water Snails *Lymnaea* spp. had been washed up onto the dam. Were the events connected? Perhaps not, as several hundred Common Blue Damselflies *Enallagma cyathigerum*, recently hatched and seemingly content, fluttered across the water surface, many pairs in tandem.

The return walk in the afternoon followed a steadily climbing track through mixed plantation woodland almost to the summit of Deuchrie Dod. This vantage point allowed us a spectacular northern panorama over the East Lothian countryside from Dunbar and the Belhaven surf westwards to the Bass Rock, Isle of May, North Berwick Law and Traprain.

Neville Crowther

NORTH BERWICK - SEaweEDS

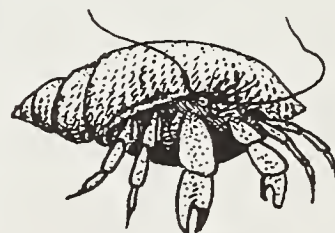
Date 16th August

Unfortunately, the leader who was to enlighten us on the subject of seaweeds was unable to accompany us, so we were left to our own devices. We guddled about in the rock pools on the East Bay at North Berwick; not altogether an unpleasant situation to be in on a sunny August day! We spent most of the morning on the beach looking mainly at the seaweeds and rock pool creatures; we then walked eastwards round the headland towards Daisy Island, paying more attention to the plant life and birds.

Rock pools...

Rock pools have always held a certain fascination for me, which has grown as I learn more about what is going on in these forever changing, highly demanding environments. Not only are rock pools exposed to great variation with the tides, but individual pools differ greatly depending on their position on the shore. Those higher up the beach are exposed for longer periods of time. In dry sunny weather this increases water loss and raises salinity levels; in wet weather salinity can be significantly diluted by rain. They must also contend with rises in water temperature and subsequent oxygen depletion. These extreme conditions make life more and more difficult the higher up the beach a rock pool is, therefore biodiversity tends to increase as you move down the beach.

The excitement and enjoyment of guddling about in a rock pool seems to be something that in no way diminishes with age and we were all very quickly paddling about in search of life. In amongst the seaweeds which clothe the pools, lots of different creatures were hiding, all with their own strategy for coping with the variations in their habitat. We saw molluscs including Grey Topshells, Periwinkles, Dog Whelks, and Flat Periwinkles, all of which employ the mechanism of sealing water inside their shells with their operculum, thus creating their own microhabitat. Chitons and Limpets don't bother with the operculum; they simply use their strong muscular foot to suction themselves to the rock; in the case of the Limpets, they wiggle (technical term!) their shells against the rock grinding down either the rock or the shell, depending which is hardest, to a perfect fit; on softer rocks 'Limpet rings' can be seen where a Limpet has carved a depression and then moved on. The pools also contained quite a few Hermit Crabs; it is always surprising to see what appears to be a Dog Whelk scuttling across the bottom of a pool! The only other crab we saw was a Shore Crab; it is the



CRAB or WHELK ??

only crab able to live in pools higher up the beach, as it can alter the salt balance within its body, and is therefore able to cope with significant changes in salinity levels. With a lot of effort and laughter, and many stratagems, we were able to catch some of the little fishes living in the pools. One of the commonest rock pool fishes is the Shanny, which has the adaptation of many rock pool fishes of having excellent camouflage, and in fact goes one step further, in that it is able to change its colour to match its surroundings.

Plants and the like...

As anyone who knows me will be aware, my botanical skills are limited, to say the very least, so many thanks to Jackie for all the details of the plants etc. that we saw.

The total list for the day was a healthy 76 different plants, including a number of calcareous soil indicators, such as Kidney Vetch, Crested Hair-grass, Rough Hawkbit, Burnet Saxifrage, and Yellow Oat-Grass. There was, of course, a good selection of maritime species, including Marram, the name of which is derived from two Norse words, *marr* and *halmr*, meaning 'sea reed'; Thrift which has distinction of being declared by sixteenth century herbalists to be one of a very few plants which has no medicinal use; Sand Sedge; Sea Fern Grass; Scurvy Grass, which was used as an early treatment for scurvy due to its high vitamin C content, and whose leaves were made into a beer called scurvy grass ale); Sand Couch; Sea Milkwort; Sea Buckthorn; Sea Sandwort; Lyme Grass; Buckshorn Plantain; Sea Plantain, Common Saltmarsh Grass; Sea Campion; and Greater Sea Spurrey. One species that came as rather a surprise was a Tomato plant which was happily growing at the top of the beach where a small burn flows down from the slope.

We also saw Coltsfoot which was infected with an interesting little rust, *Puccinia poarum*, which produces swollen areas covered with 'cluster cups' on the underside of the leaf, showing orange spots above. The little cups are known as *aecia* and produce spores which infect Meadow grasses *Poa* spp., eventually producing black eruptions on the leaves and stems, whose spores reinfect the Coltsfoot. Usually the cycle takes a year to complete, with the spores from the second host, the grass, overwintering. *Puccinia poarum*, however, often manages two cycles in a year, reinfecting Coltsfoot in the late summer.

Despite the lack of our seaweed expert, we were still able to see a good number of these interesting organisms, including Sugar and other Kelps, Dabberlocks, Gutweed, Sea Lettuce and Irish Moss; this last seaweed is traditionally used as a gelling agent to make soap and blancmange. Although

normally a dark red colour, when exposed to strong light it can turn a bright yellow-green. We saw examples of this in the shallow exposed pools, with red plants being found in shaded, deeper pools. On some kelp fronds there were patches of Sea Mat *Membranipora membranacea*, a tracery of tiny colonial organisms. We also managed to see four species of Wrack: Channel, Spiral, Bladder and Toothed; Channel Wrack is found high on the shore, typically just above the high water level of neap tides; the Spiral Wrack tends to be found in a band just below this; Bladder Wrack is found throughout the midshore of exposed coasts and is the only Wrack with distinctive gas bladders along the frond. Toothed Wrack is found lowest on the shore and is often colonised by the Tubeworm *Spirorbis spirorbis*, giving the appearance of being home to lots of tiny snails.

Birds...

August is considered a notoriously quiet month for birders, who often turn their attention to butterflies for a few weeks – anything to get their fix of flying creatures! Despite this, we saw some nice birds on and around the shore; the usual suspects were all there, probing along the tideline and in the seaweed on the rocks: Oystercatcher, Curlew, Redshank, Turnstone, Dunlin, Golden Plover and an early Sanderling. Also searching for food among the seaweeds were Starlings, Rock Pipits, Pied Wagtails, and a rather lost-looking Grey Heron. The bushes and vegetation that grow on the slopes of the collapsed cone of an ancient volcano which forms the east end of the bay, are always good for little birds, with Goldfinches, Greenfinches, Linnets, House Sparrows, and Yellowhammer (a species that is becoming a distinct rarity these days) all putting in an appearance throughout the day. The sheltered corner also attracts House Martins and Swallows to feed on the insects there, with Wheatears hopping about in the grass on the top of the cliff.

The soundtrack for the day was provided by the many Sandwich Terns flying and calling, along with the Gannets, Fulmars and various gulls, over the heads of the Eiders, Cormorants, Red-breasted Mergansers and Shags on the sea. Had we been forced to rely on the birders back-up (the butterflies), we would have been rather disappointed as only Small Tortoiseshells, Large Whites and Peacocks were around.

So, all in all, I have to say that messing about on the beach, climbing over the rocks and guddling in the rock pools was a most enjoyable and interesting way to spend a sunny, warm, August day.

Natalie Taylor

CURRIE GLEN

Date 23rd August
Leader Bill Baird

The group met at the Borthwick Scout Group car park and walked from there along the road to the old stone bridge over the South Middleton burn. Here we turned off on a stream-side path and made our way upstream towards the entrance to Currie Glen. The very low water level enabled us to walk up the bed of the stream into the gorge. We reflected as we paddled along, how different it would have been on a day in August 1837. Then a very heavy rain storm, combined with a burst dam on the Middleton estate, sent a torrent of water down Currie Glen. Such was the power of the flood that it scoured away all soil and vegetation from the sides of the gorge, to leave nothing but the bare rock.

The sides of the glen are once again clothed in soil and trees, but it is still possible to see the exposed rocks in the steep sides. On the north side of the valley the cliffs are formed from beds of a soft red and creamy white sandstone, with marly bands between the individual beds of rock. On the opposite bank are volcanic rocks with clayey decomposing ash, tuff and hard cherty nodules. Hard pillowy lava is also reported from this site, but we were unable to find a convincing example. Although both types of rock are of roughly the same age, belonging to the Calcareous Sandstone time, which is Lower Carboniferous in age, they are separated physically by faults. It is in fact these faults which have fractured and weakened the rock, allowing the river to develop such a deep gorge.

This is a geologically interesting locality, being the only place in Midlothian where Carboniferous volcanic rocks are exposed at the surface. It is noted because of its rocks and structures and I did not expect to find fossils. However, the sharp eyes of the group spotted examples of the Carboniferous plant *Lepidodendron* and its root *stigmaria*. There was also a piece of a sea lily stem (crinoid) in a limestone pebble, probably washed down from further upstream. A dry weather opportunity to visit an interesting site with a revealing geological past.

Bill Baird

AND IN THE AFTERNOON

If the morning negotiation of the gorge was difficult for some members, there was no such problem in the afternoon. The walk back down through the woods was easy and quickly accomplished. It was pleasant, but there was little of special natural history interest. Back at the parking place, however, members began to scout around,

particularly in the area near the North Middleton burn which flows from an area of limestone. There was a pleasant walk to Borthwick church, but some members found two items to attract their attention. The first was a Norway Maple on which Orange Ladybirds *Halysia 16-guttata*, with their characteristic larvae, were hatching. The second was a caterpillar on the bark of an Oak. A peculiarity was that it had a prominent lump near its mouth end, which clearly indicated that it was the larva of a Grey Dagger moth *Acronicta psi*. These larvae commonly pupate in cracks in the bark of trees.

Andrew Gilchrist

BALBIRNIE ESTATE and STAR MOSS

Date 30th August
Leaders Frances and Munro Dunn

Balbirnie Estate was the home of the Balfour Family from the mid 17th century. Landscaping in the late 18th and early 19th centuries resulted in a park with what the Second Statistical Account referred to as "some of the finest trees in the country".

The first part of the walk took us round some of these interesting specimens, such as the Wellingtonia *Sequoiadendron giganteum*, the Coast Redwood *Sequoia sempervirens*, and the Dawn Redwood *Metasequoia glyptostroboides*. The last named was thought to be extinct, and was classified in 1941 by studying fossilised remains. Later that year a living specimen was found in China, material sent to America for propagation, and then distributed world wide.

Two Cedars, the Indian *Cedrus deodara* and the Atlas *Cedrus atlantica* stand near each other, just below a stand of ten Monkey Puzzle trees *Araucaria araucana*. Behind the craft centre stands one of the most attractive trees, the evergreen *Eucryphia nymansensis*. It is a hybrid of Chilean parentage, and in August is covered with 2-inch wide, 4-petalled white flowers. Nearby is an evergreen Holm Oak *Quercus ilex*, and in a garden a fine specimen of Royal Fern *Osmunda regalis*.

Thereafter we went by Markinch, past the ancient Stob Cross, and over a small wooded hill to Star and Star Moss, returning by a slightly different route. Star Moss is a peat bog with a wide variety of habitats, but it did not yield notable finds on a quick visit in late summer. It is nevertheless a very atmospheric spot.

The weather was kind - sunny and warm with a gentle breeze.

Frances Dunn

SLUGS AND SNAILS

Date 6th September
Leader Adrian Sumner

15 members met at the Union Canal, Kingsknowe Road, for a day looking at slugs and snails.

To start the day Eunice presented a jar of specimens from her garden. Adrian quickly identified them as the Brown Lipped Snail *Cepaea nemoralis* which has a large globular shell of 5 spirals and a thickened brown lip, a much flatter *Trichia striolata* which has 6 spirals, and a big fat slug *Milax sowerbyi* which has a ridge along the middle of the dorsal surface, a characteristic of the *Milax* genus.

We eventually made our way down to the canal to fish out some aquatic snails. First out was an operculate, one of the largest aquatic snails we were to find on this occasion, *Bithynia tentaculata*. These snails can close the opening of the shell with what is known as an operculum, thus enabling them to withstand drying out. Adrian told us that the operculate snails have males and females, whereas the others are hermaphrodite and fertilise each other when they couple.

Several shiny-shelled *Physa fontinalis* were found. They are the first to colonise new territory. Tiny ramshorns *Planorbis carinatus*, *Bathymphalus contortus*, and *Valvata cristata* were shown to us. These all have flatly-coiled shells.

On stems of *Glyceria maxima*, near the roots, we were finding small *Oxyloma pfeifferi*, not an aquatic snail, but one that likes to be on damp stems. On the submerged stems of the *Glyceria* were freshwater limpets *Acroloxus lacustris*, no relation of the well known limpet of the seashore. On weed brought out of the water were tiny bivalve shells, *Sphaerium comenm*.

After lunch we made our way to Blackford Hill where we turned over rotting logs in search of slugs and snails. We found six species of the large, thick bodied slugs. These were *Limax maximus* known as the Leopard Slug because of the spots on the mantle; the green *Limax maculatus*; *Limax marginatus* which is translucent when wet; *Arion subfuscus* which has an orange longitudinal band; *Arion distinctus* which is smaller than the others and yellow underneath; and *Arion flagellus*. A smaller brownish slug *Deroceras laeve* was also found.

We uncovered four tiny flat whorl-shaped shells; two were similar-looking shiny shells:

Oxychilus cellarius which has a dark coloured body, and *Oxychilus alliarius* which has a light coloured body and smells strongly of garlic. All but our leader were surprised to find that this tiny animal

could emit a distinct odour of garlic. *Discus rotundatus* was distinctive as the six whorls are strongly transversely striated with reddish-brown bands. *Nesovitrea hammonis* had three whorls, and is also transversely striated but uniformly coloured.

Finally we walked along the path to a wall on which there were several *Helix aspersa*, the Garden Snail. At this point Adrian thought we had probably seen all the species we were likely to find, so, after a vote of thanks to Adrian, we retraced our steps homeward.

Ena Gillespie

LINLITHGOW LOCH and BLACKNESS

Date 13th September
Leader Martin Gray

This was a fine day eventually for this two-venue outing, after a very unpromising start to the morning. We met our leader for the day, Martin Gray from Historic Scotland Ranger Service, on the Peel, and he was able to give us not only a short history of the Palace, but also an up-to-date account of recent developments. Interestingly, some of the islands in the Loch have recently been proved to be Crannogs.

Martin then took us on a complete circumnavigation of the Loch, one of only two natural lochs in the Lothians, the other being Duddingston, all the while pointing out items of interest. The Bramble crop around the loch was particularly fine and our members were not shy to sample it. We also partook of the fruit of a Cherry Plum Tree.

On the water there were the usual large numbers of Black-headed Gulls, Mallard, Coot, Greylag, Mute Swans and Tufted Ducks, but also a few Moorhen and Lesser Black-backs, about a dozen Dabchick and last but not least, a solitary male Red-crested Pochard, lovely bird.



TUFTED DUCK

Many typical waterside plants were noted, including Common Reed *Phragmites australis*, Reed Canary Grass *Phalaris arundinacea*, Reed Sweet Grass *Glyceria maxima*, Bulrush *Typha latifolia*, Amphibious Bistort *Persicaria amphibia*, Water Mint *Mentha aquatica* and, unusual for West Lothian, Gipsywort *Lycopus europaeus*. Also found was Wild Radish *Raphanus raphanistrum* in the afternoon and a large plant of Horse-radish *Armoracia rusticana*.

Having completed the circuit of the loch, the company repaired to the Peel for lunch. Suitably refreshed, we reassembled at Blackness Castle which, as Martin reminded us, was one of

Scotland's four strategic strongholds, with Edinburgh, Stirling and Dumbarton, and was never taken by assault.

The group now made its own assault on the mudflats, the tide being well out, searching for the Eelgrass which is to be found there. Dwarf Eelgrass *Zostera noltii* was quickly found and soon afterwards, Jackie Muscott retrieved some Narrow-leaved Eelgrass *Zostera angustifolia* from well out on the mudflats. It typically dwells between half and low tide levels.

There was a good assortment of sea birds and waders including large numbers of Shelduck and Golden Plover. There were also smaller numbers of Sandwich Terns, Greater and Lesser Black-backs, Herring Gulls, Lapwing, Dunlin, Ringed Plover, Curlew, Bartailed Godwit, Oystercatcher and Redshank. A lone Heron was in attendance and a dozen or so early Wigeon were seen far out on the water.

The afternoon combined a shore walk with a return route through some woodland. The plants found growing around the shore included False Fox Sedge *Carex otrubae*, Common Valerian *Valeriana officinalis*, Wild Angelica *Angelica sylvestris*, Hemlock Water Dropwort *Oenanthe crocata*, Grass-leaved Orache *Atriplex littoralis*, Sea Sandwort *Honkenya peploides*, Glasswort *Salicornia* sp. and Celery-leaved Buttercup *Ranunculus sceleratus*, while some Perennial Sow-thistle *Sonchus arvensis* was found making a brave late show.

The Fungi were conspicuous by their absence although an attractive but rather lonely Orange-peel Fungus *Aleuria aurantia* was found.

It was an interesting day, with lots to see and hear.

John Watson

HANGINGSHAW, YARROW

Date 20th September
Leader Roy Watling

We had been looking forward to foraying in the grounds of Mill Glade, formerly part of the Hangingshaw Estate. However, after three months without rain, we wondered whether there would be any fungi to find. We need not have worried as Roy Watling seems to find fungi where no one else does, and can identify them, to boot.

To start with, Dr Neville Morgan, who kindly invited us to Mill Glade, demonstrated on a plan the different areas in which we would be foraying, some of them possibly little changed from a century or more ago. We set off in the wake of our

leader, to a stand of mature Beech trees. After such a long drought, almost everything we found was associated with wood, dung or plant foliage and, initially, everything was very large or very small. The first find was the Giant Polypore *Meripilus giganteus*, forming enormous fans around an old Beech stump. By contrast, *Collybia cookei* had a cap less than 1 cm across, tiny gills and a stipe about 1 mm wide: it was associated with decaying fungi and arose from a yellowish seed-like sclerotium. Chicken of the Woods *Laetiporus sulphureus* was another large fungus with pores rather than gills, growing in tiers on an old Oak and paler than its usual sulphur yellow colour, presumably because of the dry weather. A more normal-sized gilled toadstool was found on a number of stumps hereabouts - *Pluteus cervinus* with a dark brown cap, free gills and pink spores.

On the face of its gills, *Pluteus cervinus* has very distinctive structures called cystidia, which have several hooks on the end - but a microscope is needed to see these.



After lunch near Mill Glade House, we made our way through a stand of conifers to the northern boundary, and returned by the side of a dried out burn to what would have been the mill pond in normal weather conditions, but which contained no water on the day of our visit. A sortie through a shrubbery and thickets above the 'pond' completed the day. An early find in the afternoon was a Stinkhorn *Phallus impudicus* whose presence was revealed by its offensive smell. On a conifer log were overlapping rows of the small bracket fungus *Trichaptum abietinum*, whose purple pore surface is so distinctive, and on bare ground near the stream was Orange Peel Fungus *Aleuria aurantia* looking just as its name suggests. The shrubbery yielded another 'normal' toadstool with cap and gills, *Agrocybe erebia*, this time growing on the ground, with a dark brown cap and whitish grooved ring on the stipe.

In spite of the drought, the species list was a long one and we had had a great day led by an expert, and in an area few of us had visited before.

Mary Clarkson



VANE FARM

Date 27th September
Leader Colin Shaw, Warden

Twelve Nats gathered at the car park. We went into the warm and welcoming Centre where we met Colin. He described the Vane Farm Nature Reserve, set on the south shore of Loch Leven in this beautiful Kinross-shire countryside.

To quote the Centre's leaflet "Loch Leven is brimming with wildlife. It is the largest water of its kind in lowland Britain and has been a National Nature Reserve since 1964. Scottish Natural Heritage manages the reserve which was recently extended to include the Vane Farm section, run by the Royal Society for the Protection of Birds." The RSPB bought their site in 1967, buying the extra lochside habitat in the early 1990s. Their work in the 1970s was on the hill, planting Oaks, Rowans and Birches. When the lochside was purchased they removed trees from there, because predators sit in trees, and Lapwings and other waders like open spaces; since 1990, Lapwing breeding pairs have increased from one pair to 16 pairs. Other important birds to encourage are Curlew, Redshank and Snipe. By creating a wetland, with flooding which is controlled, many wetland birds find a haven where they are undisturbed, yet visitors can view them from the three strategically placed hides.

The Loch Leven leaflet says "the loch is home to more breeding ducks than anywhere else in inland Europe. And from late summer until spring, tens of thousands of other wildfowl from many different countries also use it for short and long-term stopovers. Their presence gives Loch Leven year-round interest and a global importance.

"Loch Leven fills over 13 square kilometres of low ground. The average depth of just under four metres is ideal for dabbling ducks, ducklings and up-ending swans to grab some of the small creatures and plants that thrive in the food-rich water." St. Serf's Island has 400-600 pairs of Tufted Duck on it each year. Hundreds of Mallard are there too, with about 80 pairs of Gadwall.

Our first wildlife sighting was hundreds of Pink-footed Geese on the marsh. Two Barnacle Geese were spied on the edge of the flock, through the telescope from the car park. Colin told us that the first Pinkfeet to arrive were 20 birds on the 26th August. Last year the first did not arrive until 10th September. He told us that 8000 had arrived that morning; we saw many of them during the day and heard their evocative calls in the flying skeins coming in.

From the viewing gallery in the cafe we were able to watch little birds on the feeders. Three Coal Tits, Greenfinch, Chaffinch, a Great Tit and Blue Tit darted to and fro. From the hides we saw many ducks: Wigeon, Teal, Mallard, Tufted Duck and Pochard. Natalie found a female Gadwall, very like a female Pintail up-ending. But the 'star' of the day was a Snipe with its beautiful stripes and long, long bill emerging occasionally among the vegetation. The luckiest people with us were those who saw a Water Rail: that elusive bird which in all my three score years and fourteen I have *never* seen, although I have often stood next to someone who claimed to have seen one. Needless-to-say, I was standing next to Natalie when she saw it here and she tried very hard to help me see it too. Alas, to no avail. But I saw a handsome Heron and a Buzzard sitting on the hill; and many Great-crested Grebes on the loch.

Jackie recorded plants of interest including Water Forget-me-not, Lesser Spearwort, Water Mint, Amphibious Bistort, Monkey Flower, Water Plantain and Pond Water Crowfoot.

But for me the most delightful sight was a dancing darting little group of Goldfinches, diving now and then to feed on the seedheads of Knapweed. No wonder such a group is called a 'CHARM'.



A few of us finished the day by visiting a damp wood at Portmoak to search for fungi. By mistake, we drove up a private drive to a house, where we had to turn in a small driveway. Unfortunately, the owner of the house arrived in her car just as we were trying to escape. She looked rather unhappy with our invasion. We did not stop to explain, but made a hasty retreat.

The fungi at Portmoak were good. Mary Clarkson made a detailed list but I recognised Sulphur Tuft, Weeping Widow, Orange Peel fungus, False Chanterelle, Candle Snuff fungus and the potent smell of Stinkhorn. In the evening, rain fell and we decided to call it a day; a good day for varied natural history.

Mary Tebble

AUCHENDINNY AND FIRTH

Date 4th October
Leader Mike Richardson

This was a repeat visit – the first was on the same date, but 90 years earlier, and it was suggested that a return trip might be interesting to compare notes. It was a pity, therefore, that it was at the end of the most remarkable summer I can recall, in terms of heat and drought, and, in common with many other fungus outings this year, there were very few fungi around. Most of our time was spent on the Auchendinny land, which included a wooded drive, some nice old lawns, some grazed pasture, and some lovely old, unmanaged woodland on the steep slopes of a tributary of the North Esk which marched with the Firth woodland. In contrast, in 1913 ‘in the woods of Firth, fungi were found so numerously that time was not left to visit the woods of Auchendinny’. Our total list was relatively meagre, at just over a hundred, of which about one third were microfungi. This compared with a published list of about 100 and a total of about 150 stated to have been found on the 1913 excursion. A proper comparison is not possible, but it was clear from the two lists that the two visits were very different. The 1913 forayers reported many more mycorrhizal fungi than we found, e.g. *Amanita*, *Tricholoma*, *Russula*, *Lactarius*, and *Boleti* comprised 18 % of the 1913 list, but only 6% of our list, and even then their correspondent expressed dissatisfaction with the number of such species found. Where there was agreement was in the occurrence of *Armillaria*, which in 1913 occurred in ‘great abundance and [were] unusually large’. We found *Armillaria*, especially *A. gallica*, to be the predominant fruiting fungus, occurring all over the place on the abundance of fallen wood.

Old, dead wood proved to be the last resort of desperate forayers, looking for brackets and resupinates, with most saying “we’ll take that back for Elizabeth Farquharson, who for some strange reason has developed a fondness for these fungi”. The lawn of Auchendinny House, like many of that type, produced a nice collection of Waxcaps and Entolomataceae, and in a good year could be expected to provide many more. Similarly, the woodlands look as though they have great potential in a good year, and it would be interesting to visit them again before 2093.

Mike Richardson

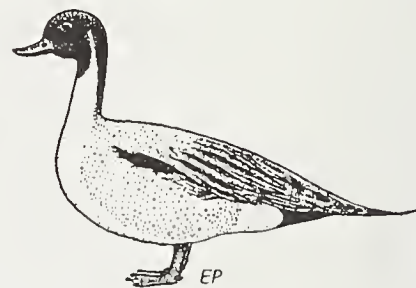


ABERLADY

Date 11th October
Leader Bill Clunie

A beautiful sunny, calm day resulted in an outing well-attended by Nats, but maybe not by as many birds as the keen birders would have hoped for. A walk from the car park, round the bay towards Kilspindie, was not especially productive.

Amazingly, by lunchtime, most of the party had reached Gullane Point, from where a Razorbill, two Red-throated Divers, Mergansers and Scoters, both Velvet and Common, were spotted. A highlight of the return journey was the sighting of 24 Whooper Swans out over the saltmarsh, and a view of Pintails, one male and one female, on the water.



PINTAIL

Other creatures on the wing included one Common Darter *Sympetrum striolatum*, and two or three Red Admiral Butterflies.

It was a splendid day out.

Lyn Blades

TWEED WALK, ST. BOSWELLS

Date 15th November
Leader Mary Clarkson

Members enjoyed an exceptionally warm, bright, sunny day for November, though there was a chill wind. It turned out to be a walk with many interests for the naturalist.

We followed the path on the shady side of the Tweed, deep in leaf litter, and admired the lovely autumn colours in the sunshine on the opposite bank. Several ferns were noted: Hart’s Tongue *Asplenium scolopendrium*, Hard Shield *Polystichum aculeatum*, Polypody *Polypodium vulgare* and lots of Male Fern *Dryopteris felix-mas*.

A few late summer flowers of Red Campion *Silene dioica* lingered. There are extensive beds of Common Butterbur *Petasites hybridus* on the wet areas.

River birds included (as always) Mallard, then Heron, a Merganser, five Goosanders and a Wagtail.

Woodland birds seen were Blue Tits, Long-tailed Tits, a Treecreeper, Chaffinches and Wren. Later Molly Woolgar saw a Goldcrest and a flock of Scandinavian Thrushes.

Salmon were leaping and we enjoyed watching them at lunchtime; fisherman were out on the river; insects were plentiful; Jeff Waddell with his butterfly net trapped Mayfly and Stonefly for us to examine; and the highlight was a Peacock Butterfly in very good condition. Remarkable for November!.

The mycologists were happy with their fungal finds: *Tubaria*, Velvet Shank *Flammulina velutipes*, *Crepidotus*, *Mycena gallericulata*, *Tremella*, *Clitocybe fragrans*, *Psathyrella*, *Stropharia* and best of all *Stereum rugosum* on an old Alder tree. Mary Clarkson has the full list. After lunch we crossed the Dryburgh footbridge. On the slope above stands *The Temple of the Muses*, a tribute to James Thomson (1700 - 1748), a Border poet who wrote 'The Seasons' (1730) which foreshadowed the Romantic Movement followed by the likes of Keats. James Thomson is also credited with the words of *Rule Britannia* (1740).

Higher up the hill is the Wallace Monument which we had seen from our picnic site. This is a huge figure of a kilted Wallace in battle dress, dated MDCCCXIV (1814). The dedication reads

‘Great Patriot Hero
Ill-requited chief’

The rest is badly weathered and difficult to read, but it was erected by

*David Stuart Comyn
Earl of Buchan*

followed by the name

Johannes Smaif Sculpture.

Apparently the 11th Earl of Buchan was an eccentric (1742 - 1819)*

We had trudged uphill, ankle-deep in dry leaves from an avenue of old Beech trees. Jean Murray found Sanicle leaves just below the monument. We left a record of our visit in the folder provided in the metal box on the site. On the way down we stopped to admire the beautiful ornamental gates of the Buchan estate. We re-crossed the river and followed the path back to the car park. A good day's outing, with something for everyone; many thanks to Mary Clarkson.

Mary Robertson

Reference: Macmillan's Encyclopaedia Page 1208.

BUILDING STONES of EDINBURGH

<u>Date</u>	6th December
<u>Leader</u>	Betty Mitchelhill

On one of our summer excursions we visited the remains of Craigleith Quarry, behind the Sainsbury's Supermarket at Blackhall, which was built on the actual quarry site. (See report on Page 40) We decided to follow this up by looking at how the stone from this and other quarries had been used in some of Edinburgh's buildings. The excursion was based on part of the walk described in the leaflet *CALTON HILL GEOLOGICAL WALK -- monuments in stone*.

We started at St. Andrew's and St. George's Church. Built in 1785 it was one of the earliest buildings in George Street. The front part of the church was built of Craigleith stone. The circular body of the church is droned (ie each stone decorated by horizontal marks). As Craigleith stone is very hard it is unlikely that it would have been worked in this way and this part of the church may have been built from stone from a different quarry. We then looked across the street to the Dome, noting that it too was built of sandstone, this time from Binny Quarry in West Lothian.

To the untutored eye, one sandstone looks very much like another, so we turned our attention to the use of other stones. Immediately to the east of the church we looked at a grey granite column, part of the Standard Life building. Much of this building is of sandstone, but of particular interest is the cladding below the windows of the modern section (1975), which is of a granite gneiss, and we were able to pick out (not literally!) lovely red garnets.

Round the corner in St. Andrew's Square we stopped at number 19 to look at the superb entrance columns of polished Larvikite, a Norwegian granite (as in Larvik).

We then went round to Thistle Street to look at the Dutch Consulate building in Thistle Court - what a contrast. It is said to be the first house built in the New Town and is built of a mixture of stones picked up locally. It is often the case that the older the building, the more local is the stone from which it was built. Here there is not only local sandstone but also volcanic rocks, probably from Calton Hill. It made a very attractive building and is much more pleasing than the stark modern building immediately behind it.

It was time to retrace our steps and make for Calton Hill. On our way we had a quick look first of all at the corner building on the south side of George Street which is made of grey Creetown granite over polished black gabbro; then high up on the next building, we saw Carboniferous limestone, with fossils clearly visible. In contrast, Jenner's

building, fronting onto Princes Street, is built of red Dumfriesshire sandstone.

The Scott Monument made of Binny sandstone with its statue of Sir Walter Scott in Carrera marble reminded us of the great debate 'to clean or not to clean'. As we passed the Waverley Market we noticed the large white felspar crystals of the Portuguese granite. Continuing along Waterloo Place we finished this part of the outing as we had begun: by looking at the Craigleith sandstone of Register House and Regent Bridge.

Now we turned our attention to one of Edinburgh's volcanoes, Calton Hill. Starting at Calton Hill Steps it was not necessary to go far before we were able to see that the hill is made up of lava flows, between which are layers of volcanic ash. We turned right, up the path to the Dugald Stewart monument, which was designed by Playfair and made of sandstone from Humble. Going round behind the monument we were able to look down and see how Waterloo Place had been cut through an older graveyard.

We continued to the Old Observatory and saw that, like Thistle Court, it had been made out of stones collected locally. It was interesting to look closely at the variety of stones and how they had been used. Some had been fitted neatly into place by putting them in the wrong way i.e. with the bedding vertical instead of horizontal. This of course meant that they have weathered badly.

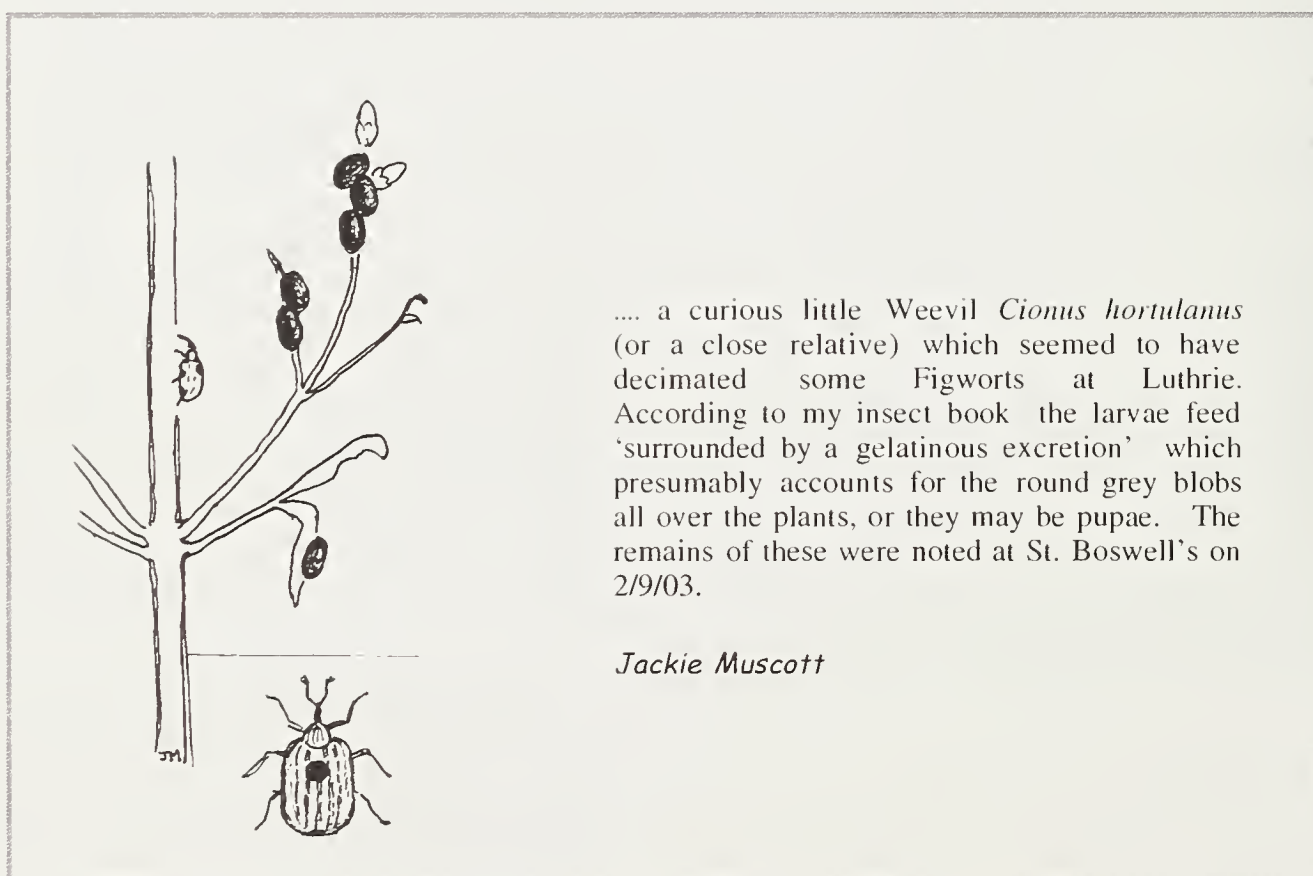
We also noticed that the mortar, which was not the original mortar, was causing harm to the building by catching rain water and so causing weathering.

We went on round the back of the building to the triangulation point. From here, as from many parts of the hill, the views are magnificent.

As the weather was getting really cold, we speeded up and had a quick look at the Playfair Monument, the Nelson Monument and the most eye-catching, the National Monument. All three are made from Craigleith stone. Descending by the side of the old Royal High School we walked east to Regent Road Park to have a look at *The Stones of Scotland*. This was laid out to commemorate the new Scottish Parliament, with stones gathered from all the regions, but unfortunately, there seems to be no record of the type of stones sent.

Finally some of us went down the steep path by Burns's Monument and up to St. John's Hill to see the Hutton Memorial Garden which stands on the site of the house where James Hutton died in 1797. It is a simple memorial with an explanatory plaque mounted on a block of Clashach sandstone. As we had visited Siccar Point in the summer it seemed appropriate to visit the garden.

Betty Mitchelhill



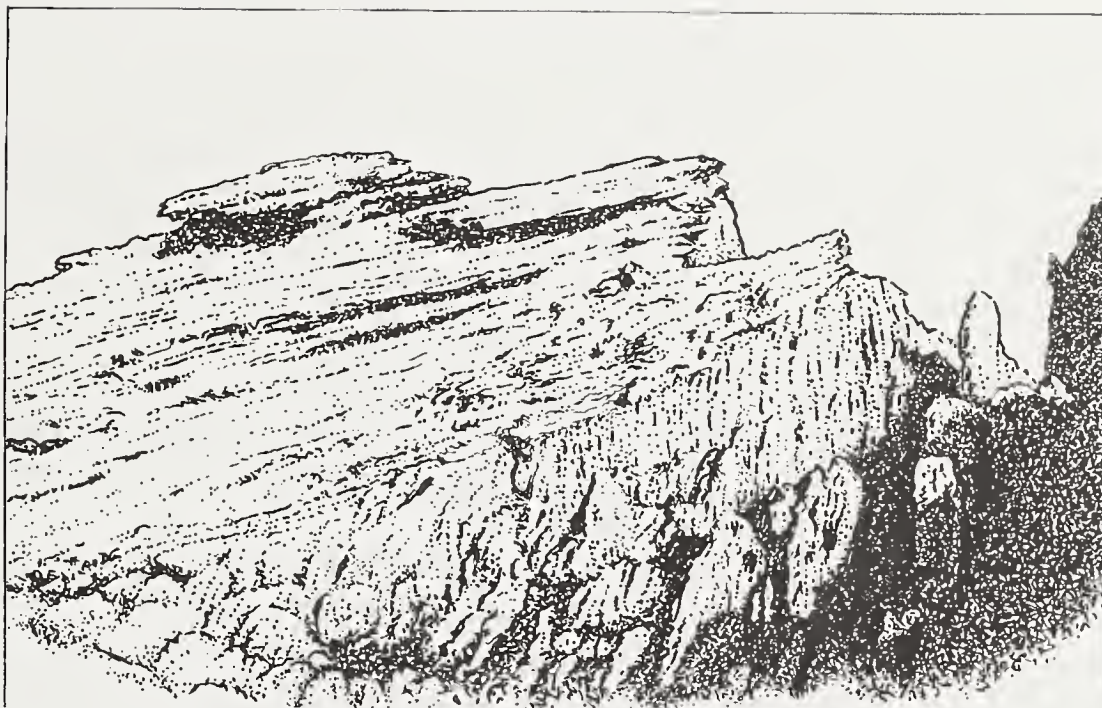
.... a curious little Weevil *Cionus hortulanus* (or a close relative) which seemed to have decimated some Figworts at Luthrie. According to my insect book the larvae feed 'surrounded by a gelatinous excretion' which presumably accounts for the round grey blobs all over the plants, or they may be pupae. The remains of these were noted at St. Boswell's on 2/9/03.

Jackie Muscott

SICCAR POINT, EAST LoTHIAN

Date 2nd August
Leader Betty
Mitchellhill

Having met at Pease Bay we took as few cars as possible to the factory at Old Cambus Quarry and from there walked across the fields to Siccar Point. The Siccar Point Unconformity is world famous because of its association with James Hutton (1726 - 1797).

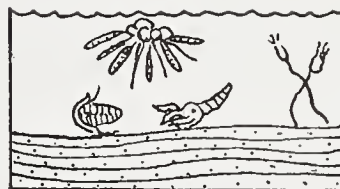


In Hutton's day people believed that the earth was only a few thousand years old. Hutton believed that it was immeasurably older. He believed there must be a rock cycle: a very slow process whereby rocks were eroded, transported and buried, only to be returned once more to the surface. He talked of looking back 'into the abyss of time'. He had seen the nearly vertical strata of very hard rocks on the Berwickshire coast and he had also seen the almost horizontal red sandstone rocks. He wanted to find the contact between them. In 1788 he set out by boat from Dunglass with friends Hall and Playfair to examine the cliffs along the coast. He found the contact shown very clearly at Siccar Point.

Nowadays we have a clearer picture of the cause of this unconformity. During the Silurian Period, Scotland and England were on the edge of two different huge land masses, separated by a great ocean, the Iapetus Ocean, south of the Equator; they began drifting towards each other, and as they did so, the sands and shales of the ocean bed were squeezed and folded, and pushed to the surface as mountains. With the closure of the ocean, these sediments were in places almost vertical as shown in Drawings 2 and 3.

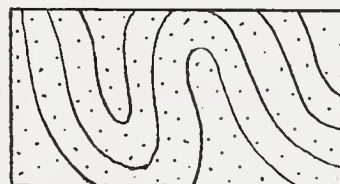
Then during Devonian times (410-360 mya) these mountains were worn down by erosion; large amounts of sandstones and conglomerates were deposited on the older vertical rocks. Desert conditions produced the red sandstones so characteristic of parts of East Lothian. [Drawing 4] It is still possible to see that there were times of flash floods when quite large rocks were caught up amongst the sand and also quieter times when there were few if any clasts. [Drawing 5]

These deposits were in turn worn away to produce the landscape we see today. [Drawing 6] Hutton saw that this must have taken a very long time so the earth must be very, very old.



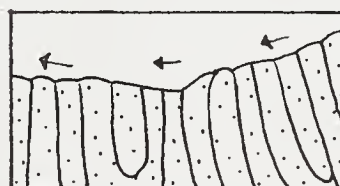
Drawing 1

The oldest rocks started off as sediments deposited on the sea bed.



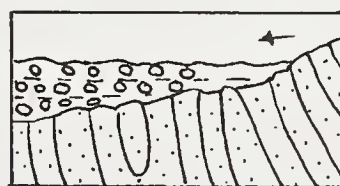
Drawing 2

Layers squeezed and folded between land masses. Silurian - 440-410 myo.



Drawing 3

Mountains worn down by erosion.



Drawing 4

Sandstones and conglomerates deposited on older vertical rocks. Devonian - 390 myo.



Drawing 5

Desert conditions give red sandstones. End of Devonian 370 myo.



Drawing 6

Erosion wore down mountains to give us what we see today.

The path down to the Point is very steep so only about half the group went down to have a closer look. Not only could we see the finer details but on looking back at the cliff face we could see clearly what Hutton must have seen as he approached upon the sea: horizontal-bedded Old Red Sandstone lying on the older almost vertical strata.

Of added interest were the nests of some House Martins built below a protruding ledge; the nests were built of grains of Old Red Sandstone, of course!

We returned up the grassy slope made beautiful by a mass of flowers. The most noticeable was Burnet Saxifrage *Pimpinella saxifraga* which was in full flower.

Having returned to the valley we watched a Peregrine circling round after some pigeons but were unable to tell if the hunt was successful as it disappeared over the crest of the hill with a distinctive cry. Amongst the flowers in the valley were Slender Thistles *Carduus tenuiflorus*, but the most interesting find was a most unusual grass. It was agreed that it was an alien but that was as far as we could go. It was later identified by Michael Braithwaite as Annual Beard-grass *Polypogon monspeliensis*. It must have been dropped by a bird or brought in on the wheels of a lorry.

We returned to Pease Bay for lunch and then set off along the cliff path to Cove. By this time the sun had come out and it was very beautiful looking down at the sand, the rocks and the sea.

Quite a number of butterflies were spotted including Green-veined White, Tortoiseshell, Peacock and Meadow Brown.

Arriving at Cove we went down the steps, along the path and through the tunnel. Cove is a beautiful little harbour which was much favoured by smugglers in the olden days. We just enjoyed looking at the harbour but did notice Perennial Sow-thistle *Sonchus arvensis* growing in the bank by the sand. Finally we went back through the tunnel to the other side of the harbour. Having started with geology we finished with geology looking at the interesting sedimentary structures - ripple marks, cross-bedding etc. - just beyond the fishermen's cottages.

Betty Mitchelhill

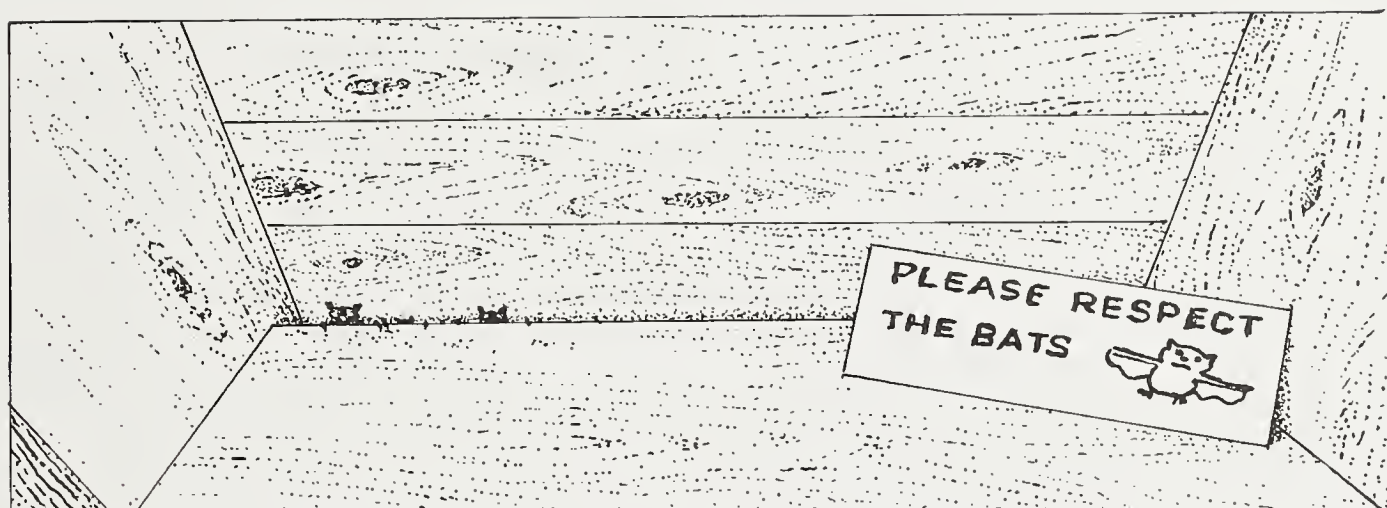
PS I have since been told that we had two firsts for Berwickshire Vice-County Records: the Annual Beard-grass *Polypogon monspeliensis* mentioned above; and a large *Persicaria*, probably *Persicaria pennsylvanica*. According to Stace, Annual Beard-grass is a native on drier parts of salt-marshes and damp places near the sea in south and south-east England, but appears as a casual elsewhere in Britain. *Persicaria pennsylvanica* also known as Pinkweed, is a plant from North America which frequently occurs with Soya-bean waste. BM

We are very grateful to Scottish Natural Heritage for permission to copy the drawings from British Geological Survey's book *East Lothian and The Borders*, one of their excellent *A Landscape fashioned by Geology* series. We recommend these books. Eds.

WINTER MEETINGS
2003

We had a very interesting series of talks over the winter months. The programme was as follows:

22nd January	Elizabeth Cutter	A Sojourn in Southern Africa
26th February	David Chamberlain	Rhododendrons in the Wild
26th March	Michael Braithwaite	In search of the flora of Berwickshire
30th April	Members' Night	
24th September	Andy Wilson	Counting Counts: the work of the BTO in Scotland
29th October	Stuart Macpherson	Biodiversity - Partridges and People
26th November	Nigel Hawkins	The John Muir Trust and its work in Scotland
17th December	Christmas Party and Photo Exhibition	



PIPISTRELLE BATS EAVESDROPPING ON THE EDINBURGH NATS !

Why Cromarty? I saw an advertisement for the Cromarty Centre in *The Scots Magazine* in the early summer of 2002. It was described as 'The Robert Gordon University Field and Conference Centre' and it looked as if it might be suitable as a base for an NATS field trip. It turned out to be more than suitable, with a Bat nursery in the attic workroom! Of the Black Isle and its natural history, I knew next to nothing at that stage; I knew a great deal more by the 20th of June! Betty set the scene for the week in a very interesting introductory talk on Friday evening!

Mary Clarkson

SATURDAY

HUGH MILLER DAY - EATHIE

Hugh Miller (1802 - 1856) was not only a geologist but also a naturalist and folklorist. Having heard an outline of his life on Friday evening we set out on Saturday to see if we too could find some fossils on Eathie shore, even though it was more than 150 years since Hugh Miller had done so. We followed Hugh Miller's advice "learn to make a right use of your eyes: the commonest things are worth looking at - even stones and weeds, and the most familiar animals" and on the long path down to the shore we kept our eyes open.

The most interesting plants spotted were Wood Vetch *Vicia sylvatica* and Heath Speedwell *Veronica officinalis*. There was one patch of Common Rockrose *Helianthemum nummularium* in full bloom and many other more common flowers to be seen. The bird watchers produced quite a long list including Whitethroat and Goldcrest.

We turned southwards along the path and then down onto the shore to explore a small area of Jurassic rock. The Great Glen Fault runs through the eastern part of the Black Isle and this is an area of great earth movements in the past. In this little bit of Cromarty we see rocks of several different geological periods: Moine, the oldest (500 million to 3 billion years ago); Old Red Sandstone from the Devonian period (360 - 410 million years ago); and Jurassic (135 - 205 mya).

The Jurassic is the period when much of Scotland was flooded, and the sea life of that time has given us the fossils we were looking for. After a fairly slow start, finds began to be made: first ammonites, then more ammonites and still more; then other fossils including a few belemnites and bivalves, until we had quite a collection. We took them back to the Centre to show to those who had not managed down to the shore, and to examine them more closely. We had pieces of fossil wood, mainly in the form of charcoal, i.e. they had been burnt before burial. There were many fish scales and different bivalves, some coated with iron pyrites. One piece of what at first looked like wood turned out to be part of a *Gryphaea* (Devil's Toenail). We had done well.

After lunch we turned back along the shore to look at the salmon bothy and at the information boards inside. We had only been there a few minutes when we had the most tremendous luck - a dozen, probably more. Dolphins put on a most marvellous show for us. They leapt, arching out of the water, sometimes singly, often in twos and threes; sometimes leaping right out of the water, twisting in the air and plunging back in. Being slightly elevated at the bothy, we had a grandstand unrestricted view. After that I for one quite forgot to look at the information boards.

Time was getting on and the group split into two. Some wanted to get back to Cromarty to have time to see such things as the cottage where Hugh Miller was born. It had been built by his great-great-

grandfather in 1711 and is a fascinating building containing such things as a 'hanging lum' used for smoking fish.

The rest of the group continued northwards along the shore into the Old Red Sandstone area and here the find of the day was made. Natalie found a fish fossil. Admittedly the nodule had been broken open so that the fossil could be seen but nevertheless it was a great find. I will use Hugh Miller's own words to describe it: "there on a ground of light-coloured sandstone, lay the effigy of a creature fashioned out of jet, with a body covered with plates". This fish was, again in Hugh Miller's words, "an entirely different and incalculably more ancient creation" from the fish whose scales we had found earlier in the Jurassic rocks to the south.

Meeting together in the evening I think we all felt we had had a good 'Hugh Miller Day'.

Betty Mitchelhill

SUNDAY

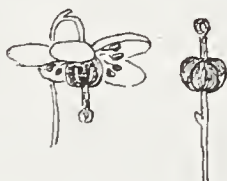
BALBLAIR WOOD

The weather was not encouraging on the second day of the Cromarty trip. However the botanists packed their waterproofs and set off in time to catch early ferries to Nigg, the quickest way north. I was in the first contingent (it's only a 2-car ferry) so we had plenty of time to get ready before the rest of the party arrived. I went off 'in search of a bush' and it soon became apparent we were not going to have any difficulty locating the particular rarity we had come to see: One-flowered Wintergreen *Moneses uniflora*.



One-flowered Wintergreen
or

St. Olaf's Candlestick
Moneses uniflora



When everyone had arrived we set off down the path into the pinewood, soon to be rewarded by large patches of the beautiful One-flowered Wintergreen throughout the wood. A large proportion of the entire British population is to be found here. We also located Twinflower *Linnaea borealis*, but though there was a very large patch, there were few flowers; I believe the lack of fertility of most Scottish populations is a cause for concern. Other relative rarities here were Creeping Lady's Tresses *Goodyera repens* and Common Wintergreen *Pyrola minor*. There were also some

surprisingly early Chanterelles - but very dried up.

We made our way to the edge of the wood (just clear of the midges) for lunch and then investigated the saltmarsh beyond. This too had its goodies - Saltmarsh Flat Sedge *Blysmus rufus* was in good supply, with Small-fruited Yellow Sedge *Carex viridula* ssp *viridula* - formerly *C. serotina*. Seaside Centaury *Centaureum littorale* and *Odontites vernus* ssp *litoralis*, a particular form of Red Bartsia found in saltmarshes in northern and western Scotland. The tide was out so we were able to examine the Beaked Tasselweed *Ruppia maritima* which grows below the high tide mark along with Narrow-leaved Eelgrass *Zostera angustifolia*.

It was not much of a day for butterflies, but we did see a couple of 6-spot Burnet Moths and a Blue-tailed Damselfly. Unfortunately soon after lunch the rain which had held off this far began to fall heavily, so the idea of a pleasant afternoon walk through the dunes was abandoned, and we decided to return to Cromarty in time to investigate Hugh Miller's birthplace and the Cromarty Museum. A good day despite the weather.

Jackie Muscott

Some of us returned via Glenmorangie Distillery and, though tempted by a drop of the hard stuff to raise our spirits, we opted for tea and splendid home-baked cake further down the road. Eds!

RSPB NIGG BAY NATURE RESERVE

Having read an article in the RSPB Scottish Newsletter on the Nigg Bay Nature Reserve coastal realignment project, I was delighted to have the opportunity to be taken round the reserve by the Warden, Steph Elliot. For two years Steph has been the RSPB Warden for Ross-shire and Moray Firth area, which has a total of seven reserves.

Our group was first taken to Meddat (25 hectares) on the North side of Nigg Bay, where the project which commenced in March 2003 involved breaching a sea wall to allow the sea to flood a low-lying field, creating saltmarsh and mudflats. These inter-tidal areas will act as a natural buffer zone to combat wave and storm damage to the coastline. Without this buffer zone, the sea hits the wall and causes damage by eroding backwards.

The sea wall has two 20-metre breaches with large boulder-filled gabions positioned to prevent further wall erosion. Already colonising the area is the seaweed *Enteromorpha* and halophytes such as Sea Aster, Red Fescue and Glasswort. Invertebrates will also be among the first to colonise, and it will take fifty years before full saltmarsh is established. Lugworms are already in evidence as are sedentary waders such as Curlew, Dunlin, Bar-tailed Godwit and Golden Plover.

Oil pollution is a major problem and it is not just the large catastrophic disasters of news headlines which cause the damage: there are many mini-spills, with 500 oiled birds being reported recently. It is estimated too that 100 hectares of saltmarsh and mudflats per annum are lost through global warming.

We returned to our cars and drove round to another part of the reserve, the Bayfield Section (20 hectares), on the east side of Nigg Bay. Work here commenced in 2001 and is expected to be completed by January 2004. Funding for the work came from the National Heritage Lottery Fund. There are five fields here where freshwater management provides good conditions for Lapwing and Redshank. Water is diverted from a nearby waterfall to the fields, through a system of ditches and sluices, to wet up the area.

A Leibricht rotary ditcher was used to dig ditches running north to south, up each side of the five fields, with elbow sluices in place. The Leibricht creates shallow ditches, with dry areas in between, suitable sites for nests to be built. The ditcher is also designed to create soft, muddy edges for young birds with their soft bills to feed. There will be a car park with a concealed footpath leading to a hide, which will be constructed at an angle to give good views of the sea in winter. Already there are four pairs of Lapwing and 2 pairs of Redshank in residence.

We didn't actually see much out of the ordinary in the way of bird life at Meddat. However at Bayfield, I was delighted to see Yellowhammer, Reed Bunting and Whitethroat. For me, Whitethroats were definitely the star of the holiday (of the small birds), and for that matter throughout the summer.

On the return journey, we had a lovely sighting of Red Kite, spotted by 'hawk-eyes' Natalie. How she keeps the car on the road *and* manages to find the birdies is a wonder to me. We also stopped off at the hide just before Jemimaville on Udale Bay (who was Jemima, does anyone know: not to mention Arabella on the road to Nigg?!). From the hide, amongst others we saw Bar-tailed Godwit, Curlew, Greenshank and Oystercatcher; Mallard, Wigeon, Merganser and Shelduck; Mute Swan, most of the Gulls, Carrion Crow and Hoodie.

Last, but not least, our thanks to Steph for giving up her Sunday morning.

Joanie Fairlie

HILTON OF CADBOLL - the walkers

When our small party of 4 arrived at the remote hamlet of Hilton of Cadboll on the coast for our second expedition, we were not particularly

favoured by good weather. It was a dull sunless day, with the nearby headlands just a grey mass looming vaguely through the low clouds. At the start of the walk we were at least spared the rain.

With the sea on our right side and an extensive area of flat grassy land on our left, bordered on its far side by a continuous wooded and vegetation-covered slope to higher ground, we walked along the stony shore towards our lunch halt, finding several plants and enjoying the attractive coastal scenery. Amongst the plants we came across in this section were Fairy Flax *Linum catharticum*, Lady's Bedstraw *Galium verum*, Birdsfoot Trefoil *Lotus corniculatus*, Purple Milk Vetch *Astragalus danicus*, Sea Sandwort *Honkenya peploides*, Bulbous Buttercup *Ranunculus bulbosus* and Slender Thistle *Carduus tenuiflorus*.

But what made the excursion very special was the discovery of the Oyster Plant *Mertensia maritima*, a rarity (prostrate, mat-forming, greyish, hairless perennial; leaves oval, fleshy, oyster-tasting; flowers pink turning blue-purple, in clusters). Relishing the sight of this plant and thinking upon the rich diversity of plant life we had already come across more than made up for the lack of clear distant views.



OYSTER PLANT
Mertensia maritima

There was also the magnificent view of a group of Cormorants standing on rocks, with their wings outstretched to dry. Oystercatchers were also spotted.

The weather really broke down during our lunch stop. Shelter from the rain and wind was found at a square hut used by fishermen. But our spirits were not dampened. After lunch, a wonderful surprise awaited those who chose to make a slight diversion. Nestling on a rocky soil-covered part of the inland cliff behind the hut, there was a marvellous collection of wild flowers. What joy it was to look and look at this amazing array of colour. In a small area there was Common Rockrose *Helianthemum nummularium*, Mouse-ear Hawkweed *Pilosella officinarum*, Bloody Cranesbill *Geranium sanguineum*, Yarrow *Achillea millefolium*, Eyebright *Euphrasia* agg. and Thyme *Thymus polytrichus*. It was so pretty that I could have lingered there all day. With spirits high, the next stage was a lengthy walk towards the main path, through very long rough grassland, soaked through with the rain.

The continuous cliff on the landward side was now extremely craggy, with bare rock visible. On the many ledges Fulmars were seen. There was a moment of amusement as we gingerly manoeuvred around a herd of cattle on the path so as not to alarm them. With no sign of the visibility ahead improving, it was decided not to go as far as intended and just to return the way we had come.

This gave me a chance to have a second look at that glorious rock face behind the lunch stop hut, with its collection of wild flowers. It really was worth having another look at it.



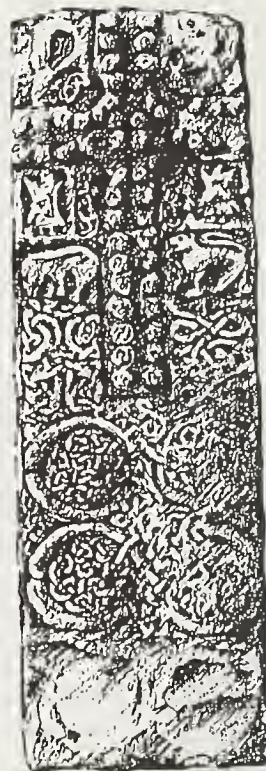
To add variety to the expedition, we stopped just outside Shandwick to have a look at a sculptured Pictish stone - *Shandwick Cross Slab*. It is totally encased in a glass case to protect it from vandals and weather. It looks a bit bizarre seeing a glass case in the middle of a field. It is completely covered with decorations. On the landward side, there are 8 panels, one of them covered with Pictish double discs, another covered by 3-in-1 spirals (triskeles); and another showing a strange Pictish animal like an elephant. The central panel depicted a hunting scene with eight people and

eighteen animals. Some of the people appear to be fighting warriors. On the seaward side it was carved with many religious symbols - a Christian cross, angels, snakes & serpents.

On the information board at the site it mentions that Daniel and the lions appear on the Christian symbols side of the stone (in comparison to the Pictish symbols side) but in checking with Groom House Museum, Rosemarkie later, they confirmed my observation that only a lion is evident and that a figure of Daniel is not apparent. My conclusion is that perhaps the lion is symbolic of Daniel and the lions. The Museum said this is a reasonable deduction. They also said that Daniel and the lions appear on other Pictish carved stones, notably on the one at Nigg.

The stone dates from the 9th century AD but nothing definite is known about the origins of the artists except that their designs were *influenced* by their knowledge of illuminated manuscripts such as the Book of Kells. It is suggested that it came from Iona and is variously dated between early 8th and early 9th centuries AD.

In 806 AD Iona was sacked by the Vikings and the surviving monks fled with the Book back to Ireland. By the 12th century it is known for certain that it was in Ireland. Another illuminated manuscript to *influence* designs was the Lindisfarne Gospels, dated 698 AD. It will be noticed that the illuminated manuscripts mentioned predate the Shandwick stone.



I would like to acknowledge here the help given to me by the curator of the Groom House Museum, Rosemarkie in supplying me with extra information to that on the site information board, and checking the accuracy of what I had noted down or committed to memory from the board.

Extra information about the illuminated manuscripts mentioned above was taken from a book in my own possession - *A History of Illuminated Manuscripts* by Christopher de Hamel, published by Phaidon Press in 1994.

Roddy Clark

HILTON OF CADBOLL - the others

At Hilton of Cadboll the weather showed little sign of clearing, so some of us decided not to do the coastal walk. Instead we visited the nearby Shandwick Pictish Standing Stone - well worth a visit - then continued to Portmahomack on the Dornoch Firth. Here there is a beautiful sandy bay where we had lunch. After lunch we visited the Tarbat Discovery Centre, which displays Pictish and medieval living in North-east Scotland. It is situated in St. Colman's Church (St. Colman was a monk from Iona). Tarbat Ness was the centre of a school of carving in the 9th century, and some of the work is displayed, in particular, grave markers and standing stones. Archaeology here is on-going, and so far has revealed a sequence of early churches and burials going back at least as far as the 9th century.

Finally we continued by car towards Tarbat Ness and walked to the lighthouse. In good weather this would be a lovely area, but we soon decided that time was running short, and anyway it was somewhat cold and wet.

Betty Mitchelhill

MONDAY

BELMADUTHY

This SWT reserve is hard to find, even with specific directions, but prior knowledge led our leader to an insignificant track through a dense growth of conifers. The track itself gave good botanising, with many sedges, including old favourites like Green-ribbed Sedge *Carex binervis* and Long-stalked Yellow Sedge *Carex viridula* ssp *brachyrrhyncha*, while among the flowers, we were delighted to see Water Avens *Geum rivale*.

On entering the reserve proper we were greeted by the sight of an improbable number of Heath Spotted and Fragrant Orchids *Dactylorhiza maculata* and *Gymnadenia conopsea*, mixed together in every possible association. These two get together as *X Dactylodenia legrandiana* but despite an extensive search none turned up for the party. Twayblade *Listera ovata* was frequent; but rarer, possibly gone over, were two sub-species of Early Marsh Orchid: *Dactylorhiza incarnata* ssp. *incarnata* is a pinkish red, while ssp *pulchella* is a reddish purple very much like Northern Marsh Orchid *Dactylorhiza purpurella*. The two are distinguished most easily because *incarnata* has markedly reflexed sides to the labellum - much like an inverted V, while *purpurella* has a labellum that is more or less in one plane. To complete our orchid list we found two specimens of Lesser Butterfly Orchid *Platanthera bifolia*, easily recognised by the parallel polinia.

Of course, the orchids were the showiest of the plants seen, carrying all the pzazz. They were not however the sole spectacle. Frogs hopped among the many runnels and a few adventurous butterflies braved the changeable weather. Searchers after sedges were having a field day, with many species hiding in the tangle. Among the flowers, good quantities of Globeflower *Trollius europaeus* in full bloom are always a delight. With such a floristic fortune available little attention was paid to the bird population, although the plaintive cries of a Curlew broke through from time to time. The sad green stars of the semi-insectivorous Butterwort *Pinguicula vulgaris* with their curious mauve flowers were everywhere. People formerly used this plant as a milk-curdling agent when making butter, and from this it is said to get its name. Oddly it is the leaves that are employed to catch unsuspecting insects: sticky glands hold its prey, while the leaf curls around like a clutching hand, completely enveloping its victim and secreting digestive juices..

Another insectivorous plant on view was Round-leaved Sundew *Drosera rotundifolia* hiding in the Sphagnum. More unusual were Northern Bedstraw *Galium boreale* and Alpine Bistort *Persicaria vivipera*, hardly a normal constituent of a lowland bog. Then again, everything about this

bog is quite out of the ordinary, with its mix of acid and lime-loving plants. All praise to the SWT for preserving a wonderful place in which to botanise.

Bill and Carol Hawkins

FAIRY GLEN, ROSEMARKIE

This glen lies on the very eastern edge of Rosemarkie. It is a long, broad, densely wooded valley, consisting of deciduous trees, with the main road running high up on its eastern side. The main points of interest were botanical, historical and scenic.

There was a multitude of ferns, but we were not expert enough to identify all of them exactly. Plants spotted were Water Avens *Geum rivale*, Sweet Cicely *Myrrhis odorata*, Red Campion *Silene dioica*, Bugle *Ajuga reptans*, Woodrush *Luzula sylvatica*, Sanicle *Sanicula europaea* and a Vetch *Vicia* sp. Various grasses were also noted. I found it a most picturesque glen, with the river flowing gently by the path. Right in the middle of the wood was a delightful spot where an old good-sized pond was located. Surrounded by the wood on all sides, with an island covered by Forget-me-nots, it was an idyllic scene. With part of the pond covered by a layer of vegetation, it was like stumbling upon a lost world. It was also interesting historically. In the mid-18th century, water from it was used to fill the ponds in front of Fairy Glen House. In these ponds flax was steeped before weaving.

The most stunning part of the walk lay at the very end. After a fairly broad valley, with a very steep side up to the road above, it suddenly narrowed where the river, having flowed away from the path, made a sharp turn and reappeared to flow through a small gorge. At the entrance to the gorge, there was a high footbridge over the river, and then the path after a sharp turn, started climbing steeply upwards, clinging to the side of the gorge. Suddenly there it was - a waterfall spreading like a fan over the rock as it dropped from a narrow entrance high up, into a deep pool. Geologically the rock at the side of the waterfall and round the edge of the deep pool was very interesting in the way the strata were laid down. Not far from this waterfall was the second one, at the end of the walk. Forming two spouts of water it was also remarkable. The pool here was shallower than the first pool.

Roddy Clark



CALLACHY WOOD

A small party of three visited Callachy Wood after lunch. On entry to the wood there was Jacob's Ladder *Polemonium caeruleum* - presumably an escapee - and in a nearby ditch, some Common Wintergreen *Pyrola minor*. The track through the wood was filled with the sounds of small birds, and it was here that some members with better eyes had watched Crested Tits earlier in the day, but sight of them eluded us.

Later we reached the cairn. As we approached, a pair of Speckled Wood Butterflies made off, and we were left with Red Admirals flitting to-and-fro to gladden our day. In the wood near the cairn were masses of Creeping Lady's Tresses *Goodyera repens* but no sign of the Lesser Twayblade *Listera cordata* that we had been told to look out for.

The cairn itself is a round 45 feet diameter burial cairn in which a cist, a cremated burial and part of an urn have been found in excavations.

Andrew Gilchrist

HILLOCKHEAD

As an alternative to the botanical visit to Belmaduthy, a small group followed a track recommended by Steph Elliott, the RSPB Warden for Ross-shire and Moray Firth, whose home was nearby. The start was at a small car park just off the minor road from Rosemarkie to Cromarty via Eathie. This minor road runs at a high level above the coast and gives the most wonderful views of the Moray Firth. We had progressed only a couple of hundred yards from the car park when our attention was drawn to a wet meadow on our right. We waded in and enjoyed identifying sedges, rushes and wetland plants.

The next treat was a small artificial pond where we saw and heard a Sedge Warbler and a Reed Bunting. Our way lay near the top of a small ridge with an entirely different vegetation: Bell Heather *Erica cinerea*, Wild Thyme *Thymus polytrichus*, Eyebright *Euphrasia* agg. and Common Rockrose *Helianthemum nummularium* among others; we were on a heath.

The track wound down into woodland, along the side of a stream and out onto the top of a vegetative cliff. There was no need to worry about how we were going to descend, as the path led in zig-zags safely to the beach. We found our most interesting plant of the day at the foot, Wild Liquorice *Astragalus glycyphyllos*. We had arranged to meet others of the party in Rosemarkie in the early afternoon and so, after a hasty lunch, we had a quick march along the sand to the rendezvous.

Mary Clarkson

CHIPS AND FISH

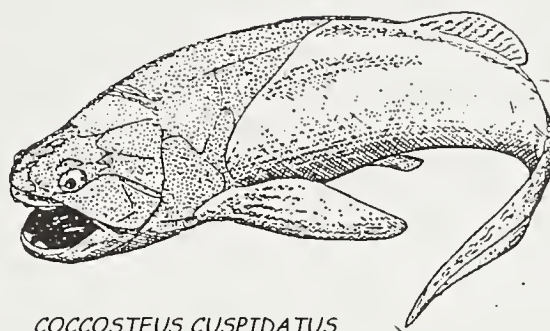
I had never been fossil-hunting before. I'd once found a lovely flint fossil of a Sea Urchin on West Worthing beach, but that was pure accident. So when we visited the beach at Eathie, famous for its fossils and associations with Hugh Miller, I was in a high state of excitement. After a morning of scrabbling about in the rocks finding prodigious numbers of Ammonites and even a few Belemnites, as we chipped and split the pieces of slate, we walked along the beach towards the mouth of the Eathie Burn. A short distance along, we decided to leave the shore and walk through the grassland at the top of the beach to look at the plantlife. Soon the nettles started to get rather too fierce for my legs, clad only in shorts, so I retreated back to the beach! As I sauntered along, I noticed a half-oval shaped stone with peculiar coloration, so stopped to investigate. The nodule measured about 8 inches across and 5 inches length-ways. Looking closely at the darker, blue/grey area in the middle of what I could now see to be a broken stone, I was able to make out definite markings of a pattern that looked like fish scales. Then I realised that not only was the stone broken along the horizontal, revealing the pattern, but also in half down the middle, so with little expectation of finding anything I began to look around for the other half. To my astonishment, just a few feet away from the first piece, I found a second, slightly smaller piece (4? inches in length), with the same pattern, which fitted almost perfectly to the first. Doubtful of my interpretation of the pattern I could see, fearful that it was the result of an overactive imagination fuelled by the morning's activities, I collected my two great

lumps of stone and carried them off to seek the opinions of my fellow Nats. Much to my relief, others could see the pattern which I saw, and agreed that it looked very much like a fish. My excitement at this was great, as not many of these limestone nodules containing fossils turn up in this manner, partly because of the vast number that were collected many years ago when the study of these creatures was still in its infancy.

On returning home, I took my fish to the Museum of Scotland where some very friendly and knowledgeable folks were able to enlighten me about my find. It was a fish of the middle Devonian (approximately 380 million years ago, before Arthur's Seat had even started to erupt): an era known as the *Age of Fishes* for the vast numbers that evolved during that period, and the vast number of fish fossils that occur in rocks of that age. This concentration of fossil fish is largely due to the climate change that was occurring at the time: the earth was heating up and huge numbers of fish were crowding in to the evaporating shallows. One of the largest classes, with over 250 known genera, is the Placoderms, the name literally meaning 'plate skin', derived from the dermal bones forming armoured plates over the head and thorax. These boney plates tend to form the majority of the fossil, mine being no exception.

What I had at first taken for the shape of a fish, was in fact the plates collapsed in and on top of one another, with what I had seen as the head actually being the end of the plates down the thorax, disappearing into the rock. The huge evolutionary radiation that occurred in the early Devonian resulted in the Placoderms, the most diverse and important of the early vertebrates. Although they seem to have been unaffected by the great Frasnian-Famennian mass extinction that shook the late Devonian, all suddenly died out at the Devonian/Carboniferous boundary, leaving no descendents, their nearest living relatives being the sharks with whom they shared a common ancestry. The Placoderms show two very important modifications to the early vertebrate body plan: paired fins allowed a greatly enhanced swimming ability; and the presence of jaws, although no teeth, but highly effective biting structures formed from the dermal bones lining the mouth, which meant that the Placoderms could be active predators, diversifying both life style and nutrient sources.

Many of these fish were preserved in nodules of limestone within the Old Red Sandstone, and were later discovered by Hugh Miller during his excursions along the shores of the Black Isle. Both Miller and Agassiz made huge contributions to our knowledge of these fishes through their investigations of the hundreds of fossils that they found. One of the genera described by Agassiz is the *Coccosteus*, named for the berry-like markings on its armour. In his book *The Old Red Sandstone* Miller listed five species of *Coccosteus*, stating that only two of them are found at Cromarty: *C. decipiens* and *C. cuspidatus*. *C. cuspidatus* was identified by the good people at the Museum as the fish that I had found. Looking closely at the fossil, it is even possible to see the pitting on the plates that give



the *Coccosteus* its name. *C. cuspidatus* was originally described by Miller, and preferred a habitat of shallow, freshwater lakes, growing to a length of about 14 inches, although the largest Placoderms could reach lengths of more than 10 metres. Unfortunately, although there is a wealth of information on the Placoderms, and even a fair amount on the *Coccosteus*, I have been able to find relatively little on *C. cuspidatus*, so I am now (enjoyably) working my way through the works of Hugh Miller, ever hopeful!

Downstairs in the new Museum, in the *Beginnings* Gallery, there is a very nice fossil of *C. cuspidatus*, and also a model showing the creature as palaeontologists think it would have looked. Although the fossil in the Museum is rather better than the one I found, I got some measure of the 'value' of mine when the staff at the Museum gave me lots of bubble-wrap to transport it home in, rather than the carrier bags that I had it wrapped in!!

So, having spent a morning collecting chips, I now had my fish to go with them!

Natalie Taylor



.....A LOVELY SIGHTING OF RED KITE

The visit to Islay was long in the planning, as we had first considered including it in the 2001 programme, and at times it looked as though it would never take place. The number of members who expressed interest was sufficient at the outset, but numbers fell away as other commitments were found to clash; yet in the end it was a very acceptable total of twelve who sailed on the 'Hebridean Isles' on Monday 3rd November from Kennacraig for Port Askaig.

Our first engagement on Monday evening was at the Wildlife Centre in Port Charlotte, where Dr Malcolm Ogilvie delivered a very informative and beautifully illustrated lecture on the natural history of Islay. He also answered questions raised by members, for instance about bats and dragonflies on the island. It was a very appropriate beginning to our visit, providing plenty of information about where to go and what we were likely to see. We had three full days (with for some, part of a fourth) ahead of us and our intention was to pack in as much as possible.

Andrew Gilchrist

Monday

The thing that strikes me most about Islay is the air clarity and ever-changing colours of land, sea and sky; no two days are the same, and with its sense of isolation and invigoration, I am well and truly hooked. This was my eleventh visit. So you can imagine my excitement when I heard that Islay was on the Nats agenda. And I was not disappointed.

I am of the opinion, long held, that Ratty was absolutely right, "*...there is nothing- absolutely nothing - half so much worth doing as simply messing about in boats*" - or at least, nothing half so much fun. So for me the excitement of the Nats trip to Islay was hugely increased by the prospect of a two-hour ferry journey there and back. Since my first trip out around the Bass Rock at the tender age of three, I have appreciated the fun of birding from boats, so I was greatly looking forward to the birds to be seen on our journey across to Islay. And I was not disappointed. Despite the huge swell, causing deep troughs which swallowed birds from view, those of us who braved the wind and occasional rain had good views of a number of different species, including Great Northern Diver, Red-throated Diver, Guillemot, Razorbill, Tystie (Black Guillemot), Red-breasted Merganser, Eider and Kittiwake. As we passed up the Sound of Islay between Islay and Jura, we even had fantastic views of Red Deer feeding on Jura, with a pair of Buzzards soaring above them.

For me the thrill I felt when I spotted my first Great Northern Diver (a new species for me) from the ferry not far out of Kennacraig, was one of *those moments*, one that will stay with me forever.

The bubbling of anticipation when you first spot the bird and try to identify it, all the time wishing it will be the species you hope for, and then the explosion of excitement when you realise that it actually is! With all that I had read and heard of Islay, I knew that the week on the island would be wonderful, but even in my wildest dreams, I had not guessed at the magical experience that lay ahead, filled with *those moments*.

With the optimism soon to become characteristic of our car (containing myself, Joanie Fairlie and Lyn Corrie), we decided that the light rain falling when we arrived at Port Askaig wasn't heavy enough to daunt us, so we would call in to see Finlaggan on our way across the island to Bowmore where we were all staying. We arrived at Finlaggan in a drizzle, but walked out to see the ruins of the ancient seat of the Lords of the Isles. As we did, the rain compliantly ceased and the sky lightened to one of the amazing skies that are particular to the Western Isles.

While we were out on the island looking at the ruined buildings, we 'ticked' the first of our target species - Twite. Once back at the car park we enjoyed good views of Ravens flying past, and of the evening sun lighting the Paps of Jura. We also experienced what might be thought of as a bus moment - you wait ages for one good bird and two come along at once.

Standing admiring the view across the loch, we suddenly spotted a glorious male Hen Harrier quartering over the fields. While watching this, our attention was caught by a smaller falcon flying fast overhead, our first Merlin of the week!

Taking the experiences of this brief half hour as a very good omen for the rest of the week, we set off, with the biggest grins on our faces (I for one did not stop grinning the whole week!), to find our B&Bs, getting some good views of Greenland White-front and Barnacle Geese, and large flocks of Redwing and Fieldfare on our way.

Loch Indaal

When I first heard about the Nats birding trip to Islay, little did I think that I would spend so much of my time there at the electricity generating station! Well, perhaps not the station itself, but the very handy layby directly opposite which has excellent views over Loch Indaal. Loch Indaal is a sea loch with an extensive intertidal sandblast at its head, which is one of the principal roost sites for the island's 36,000 wintering Barnacle Geese. Some of the best and easiest birding on Islay can be done around this area, with the road hugging the shore from Bowmore to Bruichladdich giving excellent views across the water and shore.

With the large number and variety of birds to be seen on Loch Indaal, the conveniently placed layby made a super meeting point every morning, getting each day's list off to a good start, with an easy 30-35 species in half an hour or so. Out on the water we were able to watch Wigeon, Goldeneye, Red-breasted Mergansers, Whooper Swans, Great Northern Divers, Slavonian Grebes, Common Scoters, Tysties, Eiders, Long-tailed Ducks, to name but a few. Loch Indaal is well known for its wintering flock of Scaup: at up to 1500 birds it is one of the largest in Britain, and we got good views of it. They are famous for hanging around the area of the run-off from Bowmore Distillery, a habitat that has caused them to be referred to as an example of the 'effluent society'!

An added excitement was given to our time watching over the loch, by the strong wind that blew fiercely for most of the week and caused peaks and troughs in which the birds would frequently disappear. It was certainly a challenge to find, follow, and point these birds out to other watchers!

The only break we got from the wind was on the Thursday morning when there was almost a flat calm, certainly compared to the rest of the week. This gave us a chance to get excellent views of the birds on the water, without the added challenge of

the waves. This lull in the wind was excellently timed, as we had planned to spend Thursday morning viewing the head of the loch and the sandblast from various places around the coast from Bowmore to Bruichladdich. Laybys in the Bridgend area gave great views over the exposed sandblast and allowed us to watch the hundreds of Curlew, Oystercatcher, Bar-tailed Godwits and Dunlins, and tens of Ringed Plover, Redshank, Knot, Golden Plover, and Grey Plover that feed there. From here we also had wonderful views of Pintails, Teal, Shelduck, Brent Geese and Barnacle Geese.

Just along past Bridgend we went hunting for a hide that was reportedly on the edge of the loch, giving good views; unfortunately despite searching thoroughly through some rather thick and prickly gorse, no hide was found. However we did see some nice little birds in the gorse and the nearby trees!

All these adventures and birds had whiled away the morning, and lunchtime was upon us. We stopped off the road past Blackrock, opposite the fantastic raised beach. Although not much was seen on the water from here, we did get a reasonable view of a pair of Choughs that were feeding on the sheep-grazed grassland in front of the raised beach. As either a late addition to the morning, or a start to the afternoon, they were wonderful to see. After a lovely and successful morning and a sustaining lunch, we went our separate ways to explore different areas. Natalie Taylor

Ena has the complete bird list for the Loch Indaal site for the Nats trip.

Tuesday: Loch Gruinart, Ardnave & Kilchoman

On our second morning we drove to the RSPB reserve at Loch Gruinart (pronounced 'Grunyart') via the head of Loch Indaal, and took the road cutting through the famous raised beaches. The wintering Geese were splendid - Barnacle and Greenland White-fronts everywhere you looked and showing so well in the sunlight against the green fields. The German name for the Barnacle, Nonenganz, is so apt: the Nun Goose.

We arrived at the reserve and had a look round the Centre, then drove to the hide car park where we had lunch. The rain had started by this time so we chose our day well for going to the hide at Loch

Gruinart. The new hide had not been built the last time I was here and you really do get the feeling of being right in amongst the birds, as it is on a level with the flats. The visibility was poor and it was blowing a gale but this did not stop us seeing lots. The usual ducks were there - Shoveler, Mallard, Wigeon, Goldeneye and Pintail, together with Lapwing, Redshank, Grey Heron and Mute Swan. Although I tried very hard to get someone else to see my Gadwall, unfortunately no-one did, but it was there, honest! The Barnacles of course were to-ing and fro-ing all the time with their constant contact yapping, a Peregrine swooped overhead and settled on a post, Snipe zigzagged by and Roe Deer were feeding on the flats.



The group then split up and our car (Hawkeye Natalie, Lyn and I) decided to head off to Ardnave Point. We had heard from Malcolm Ogilvie that there was a Blue-phase Snow Goose on the Island and we had just set off, driving up the hill past the Centre when there was a squawk from the driver, the car screeched to a halt, and there the goose was feeding in a field, for all to see. I was so excited to see it, I truly can't remember whether it was with Barnies or White-fronts! Anyway the wow factor was pretty high.

The road to Ardnave which runs up the west side of Loch Gruinart is a lovely road and, despite the overcast sky, the grey patchwork reflected a beautiful pattern on the water below. En route the Barnacle Geese were everywhere in the air and on the ground, and the area was hoaching with Redwings and Fieldfares, obviously not long arrived and feeding up after their migration from Iceland and Scandinavia. The Redwings we were seeing come mostly from Iceland, and have a more marked eyestripe. Just as we reached the top of the moor and Ardnave Loch came into view, there was another of those squawks from the driver - a Hen Harrier quartering over the hillside. It disappeared and we drove on hoping to catch it further on, but it did not oblige. Still, the wow factor hit the Richter scale again, especially when we saw a Merlin. We parked by the lochside and had a good scan, with 34 Whooper swans, Pochard and Tufted Duck but no Dabchick which I had hoped to see there.

After a walk - sorry I should say a blow - among the dunes looking for Golden Plover and not finding them, we went back to the car.

We about-turned and continued on our merry way to Machir Bay to look for Choughs. Sadly, they were not very obliging and we only glimpsed them at a distance. We took a brief, wind-blown walk down to the beach and found our first Ringed Plover. I was told that Sanderling were on the beach but unfortunately we did not see them. We then went back up the road to look at the Kilchoman Church with its Celtic crosses. More Redwings all over the place, and then more squawks, this time of a Chough nature, a pair flying right overhead dancing in the wind, close enough to see their red bills and feet. To see them and hear them, in the fading light, just pure dead brilliant!

Wednesday: The Oa, Kildalton & Claggain Bay

The road from Bowmore south to Port Ellen is built mostly on peat bog on the line of a proposed rail link between the two towns, with an 8-mile dead-straight section literally floating on the peat in places, causing uneven subsidence and making a rough ride if taken too fast. We did not have that problem, driving slowly, bird-watching as we travelled. I had hoped to see Hen Harrier on our way, but instead saw Hoodies and Ravens. Just before Port Ellen, we turned off the main road, only to be confronted by a Merlin sitting on the dry stane dyke. Needless to say, it didn't sit for long, so we all piled out and lined up along the wall and were delighted to see it posing on a fence post. It then flew off, and confusion ensued because Merlin, Buzzard and Short-eared Owl were seen, all in the same field, along with several Herons.

We continued our journey to The Oa, parking at the old cemetery and chapel on Kilnaughton Bay. The wind was blowing a hoolie but, nothing daunted, we kitted up and set off along the track to Carraig Fhada (the Long Sea Rock) lighthouse. On the bay were Red-breasted Merganser and Tystie (Black Guillemot) and along the shore, Rock Pipit. A solitary inquisitive Common Seal in the water under the lighthouse watched us, with the ubiquitous Wren every 50 yards or so in the bushes along the track.

When we reached the singing sands of Traigh Bhan where I have seen otters before, none were visible.

However, they had obviously been there recently as tracks and spraints were clear and very fresh. Wild Goats were clambering around the cliffs above us and we found a cave where they obviously sheltered. We also found Sea Spleenwort *Asplenium marinum* growing on the lee side of the rocks close to the sea.

After lunch taken in the cars, we headed off through Port Ellen, stopping briefly to see the Ringed Plover and Dunlin guddling about on the beach. The road took us past three of Islay's distilleries, Laphroaig, Lagavulin and Ardbeg, with their resident Collared Doves. The Otter hunt continued, stopping at Loch an t-Sailein (arm of the sea), also known locally as *Bay of the Otter*. We saw Grey Seals but no Otter. On the walk back to the car, I was pleased to see Goldfinch and Long-tailed Tit.

The road to Claggain Bay took us past the only place on Islay where Fallow Deer can be found, and they obliged beautifully in a field close to the road by Ardilistry River, identified by their white scut divided by black tail, and by their flattened antlers. We then stopped at Kildalton Church and its famous 9th Century High Cross, but still no sign of Hen Harrier or Golden Eagle, although we had a fine view of eagle country: Beinn Bheigeir, pronounced 'vicar' and meaning mountain of the vicar (wrongly spelt on the 1986 OS map). Claggain Bay itself was disappointing from a bird watching point of view as there was not a single Great Northern Diver to be seen; not surprising as the sea was piling in and there was no shelter for them. The northern and southern arms of the bay are guarded by Iron Age vitrified forts and the beach is well known for its large pebbles; the sound of the undertow of the sea dragging at the pebbles is something I never forget.

On the road back to Port Ellen, we saw a herd of Red Deer. Numbers of Red Deer are not as great as on Jura and, although we did not see many Roe Deer during our stay, culling of the latter is deemed necessary. By this time, it was late afternoon and getting dark. The cars had split up and we decided to take the 'B' road back to Bowmore to look for Barn Owl. How fortuitous. We slowed down when something small and furry scuttled across the road and then noticed a very confiding Woodcock feeding on the roadside in the headlights. We sat and watched it for a while until a car came along and we had to move. No

Barn Owls, but we were well content with our day.

Thursday pm: Ardnave again! same crowd + Betty

The Whoopers were still there and the Pochard and then a wee Dabchick appeared, just lovely to see. Then it all started to happen, the light beginning to fade with the sun setting on one side and the almost full moon coming up on the other. We drove up the track to the barn (well, can you call a modern construction of four corner pillars with a corrugated roof on top a barn?) and the Ringtail Hen Harrier appeared. Was it a Buzzard or wasn't it - no it certainly wasn't. All excited, we had a good long look at it hunting low over the ground and up over the horizon. Then there was a sound, that distinctive "chow, chow". My heart was in my mouth as we watched at least ten Choughs, some flying in and out of the barn, and some roosting on the eaves. Well, where is a body expected to look Hen Harrier with a backdrop of orange, pink and steel grey sky from the setting sun or Chough silhouetted against the moon? What was that I said about Wow factor; note the capital W!

But that wasn't the end of the squawking, not by a long chalk. Driving home in the almost dark, we stopped to look at a huge flock of Rooks and Jackdaws coming down onto the trees along the roadside to roost. We got out of the car and were looking at some frogs on the road, when yes, you've guessed, another squawk from Natalie; this time Pipistrelles feeding up and down the road under the tree canopy. "Can't be" she said. "It's the 6th of November; can't possibly be; I didn't think I needed to bring the bat detector". The icing on the cake. The squawk-mobile returned to Bowmore full of happy bunnies.

So, still totally enchanted by the magic of Islay, totally choughed, totally batty, all squawked up, I come to the end of my bit of this report. A super week with excellent company, brilliant birding and a fun time, I *will* be going back.

Joanie Fairlie



Friday

A select group of us who were willing to brave the drive home in the dark for the sake of a few extra hours on the island, lingered as long as possible, and got the late ferry back. Our car (myself, Joanie and Lyn) decided, after the obligatory start of the day at Loch Indaal, to explore the back road from Bridgend to Ballygrant. The great majority of roads on Islay are single track with lots of passing places which tend to be perfect for stopping briefly to examine whatever you had just spotted; this we did an awful lot of! Friday morning was no exception. Apart from the high winds, we were lucky with the weather all week, with Friday being particularly lovely.

The road gave us some super views across the south-eastern hills of the island, and it seemed impossible to move without seeing the ubiquitous Buzzards and Ravens! We also saw Dun Nosebridge, one of the iron-age hill forts on Islay, which looked very impressive with the morning sun shining on the ramparts. The high winds had rather limited the number of little birds which we had seen, so it was very nice to get some good views of a mixed flock of Finches and Twite feeding on the ground at the gateway to a field.



HEN HARRIER BY COMPARISON

THERE'S NO MISTAKING THE GOLDEN EAGLE



We were about three quarters of the way to Ballygrant when we spotted a Hen Harrier at a distance off to the right of the car; from the brief view we thought it to be a Ringtail but hoped to get a better view. To this end we stopped the car a little further along to scan the hillside in an attempt to relocate the bird; unfortunately we were unsuccessful. However, as we were scanning, another bird soared into view, looking, at the distance, very much like a Buzzard, but somehow seemed bigger. One thought was on all our minds

but no-one dared voice it, until the bird was so close, and so unmistakably a Golden Eagle, that we all tumbled out of the car exploding with excitement and joy. It is often said that when you see a Golden Eagle there is no mistaking it, well the bird came so close that certainly we could be in no doubt. It flew almost right over the car, in a beautifully leisurely style, floating across towards the hillside to our left. By this time we had scrambled our 'scopes and had the bird in them, so we were able to get the most fantastic views of him as he alighted on the hillside. Our surprise could not have been greater, not just at his landing, but at his landing next to another bird and a deer carcass. If I tell you that the two birds stayed there on the hillside, 'our' bird feeding, and the other sitting and, by the looks of it, digesting, for over an hour, I will leave it to you to imagine our feelings! I will also leave it to you to imagine the sight we must have made sitting on the roadside with our 'scopes before us, and a large number of field guides scattered about, as we tried to decipher the birds' plumages.

Eventually we decided that 'our' bird was a juvenile and the bird he had joined was an adult, probably a female as it was distinctly larger than 'our' bird. As the adult sat back, replete, we watched the juvenile tuck in to the deer, which appeared to be delicious! However, it did at one point fight back! As the Eagle tore at a piece of meat, one of the deer's legs shot up, making the Eagle jump back in fright; he then (after recovering his composure and giving the distinct impression that anyone who had seen what had just happened must have imagined it), purposefully stepped forward and stamped his foot down firmly on the deer! There are moments which imprint themselves firmly on your memory and stay with you for the

rest of your days, and this was such for me. I can still close my eyes and call the image up in my mind's eye. As is the way of these things, the ferry was calling and we had to leave our eagles, but after spending an hour with them, who could really complain?

As we continued along the road to Ballygrant we took our number of raptor species for the day up to five, by seeing a Merlin and a Peregrine. As my car seems to have some kind of mechanism that

prevents it from driving past good birding sites (this is often alleged to be the driver's fault??!), we stopped briefly at Ballygrant Loch, just for five minutes. After a very pleasant half hour (!), having seen the usual waterbirds and added a few woodland birds to our lists, we continued on to Finlaggan for a spot of lunch before we headed for the ferry.

In terms of birds the journey back could be considered fairly quiet, with Tysties, Great Northern Divers, Kittiwakes, Guillemots, Razorbills and the usual suspects, although the Tysties and Divers (both new to me that week), still made my heart jump. The highlight on the journey back, at least for me, was the sky. I have *never* seen a sunset which could even come close to rivalling the one which we witnessed that evening.

We left Port Askaig at half past three, just as the sun was starting to drop, turning the Paps of Jura the most stunning orange colour. As the 'Hebridean Isles' slowly (although too fast for me) made her way down the Sound of Islay, the sky took on colours that I seemed never to have seen before. Slowly as the miles between ourselves and Islay increased, the sun dropped and the moon rose. As we approached Kennacraig and our return to the real world the first stars started to appear. I lay flat on my back across a row of seats on the observation deck and simply allowed everything to wash over me: the excitement and relaxation; the storm and the calm; the elation and peace; the company and the solitude; all the feelings which I had experienced during that magical week on what is surely an enchanted island.

Natalie 'Hawkeye' Taylor

ISLAY - OTHER ASPECTS

Islay in November means birds, and geese in particular, but we soon found out that it means a great many other things besides - sandy beaches and seashells, historic churches and ancient crosses, ferns and fungi and faded flowers, rabbits and hares, wild goats and deer, seals and otters and, most of all, friendly people.

We had an excellent introduction to the wildlife of the island on our first evening when the Islay Wildlife Information Centre in Port Charlotte was opened specially for our benefit. Malcolm Ogilvie,

the leading naturalist on the island, who is an expert on birds - geese in particular - gave us a talk on the wildlife of Islay and allowed us to look around the Centre before and after the talk. It was clear that his expertise extended far beyond birds and that, if we kept our eyes open, we would see a great deal.

We saw fungi each day — well, it was that time of year. There were a few the first day on the Gruinart woodland trail, *Xylaria hypoxylon* Candlesnuff Fungus on logs, *Tremella mesenterica* Yellow Brain on gorse branches and *Clitocybe nebularis* Clouded Funnel on the ground under young trees. Wednesday was the day of the *Hygrocybes* Meadow Waxcaps and we found a total of eight different species in two grassy areas near Kildalton Church and Claggain Bay, both in the south-east part of the island. Our walk on Thursday in Ballygrant Woods, which contain both deciduous and coniferous trees, gave us the beautiful white *Pleurocybella porrigens* Angel's Wings on a conifer stump and the more familiar *Polyporus squamosus* Dryad's Saddle on the trunk of a mature Beech.

Wednesday was a very windy day and in the morning we had a shore walk in the Kilnaughton Bay/Traigh Bhan area west of Port Ellen to try to get some shelter. The flowering plants were well past but it looked as if it would be pleasant to botanise here earlier in the year with a mixture of wet and dry areas, dunes and cliffs and a stream. We recognised the remains of Wild Carrot *Daucus carota*, Purple Loosestrife *Lythrum salicaria* and Sea Campion *Silene uniflora* and found clumps of Black Bog-rush *Schoenus nigricans* and several ferns including Sea Spleenwort *Asplenium marinum*.

Ancient crosses are hardly wildlife but you cannot visit Islay without going to see some of the best-preserved early Christian crosses in the country. On our first day, we visited Kilchoman, in the west of the island, whose church is derelict and in danger of collapsing. In the grounds, however, is a splendid free-standing cross of the 14th or 15th century with well preserved carvings and decorations. Kildalton Church, in the south-east, is in a much better state of preservation, although without a roof, and in the graveyard alongside is an even more splendid cross, dating from the 8th century and covered, on both sides, with carvings of biblical scenes.

On Wednesday evening, as we returned from Claggain Bay, we had good sightings of three species of Deer: Red, Roe and Fallow, near and on the road. Seals were seen on most days and all those who left by the early boat on Friday had excellent views of them at Port Ellen harbour. The highlight of the holiday for me, however, occurred when I walked down to Bowmore harbour one morning before breakfast in the hope of seeing some birds. An Otter was swimming in the harbour! It came out of the water and ran along a line of rocks before returning to the sea. I had never seen an Otter in the wild before. What a thrill!

Mary Clarkson




AN OTTER. WHAT A THRILL!

We thought that our readers would be interested in an extract from

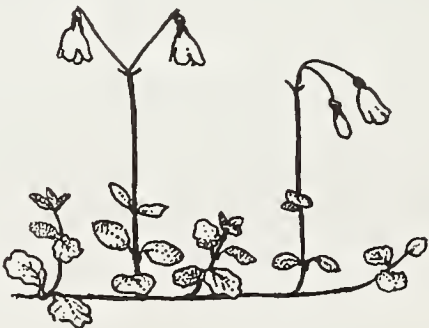
Trausactions of Edinburgh Field Naturalists' and Microscopical Society Vol V, 1903-1904.
Pages 82-83.

RARER WOODLAND PLANTS OF SCOTLAND

Moneses is remarkable for the way in which autogamy or self - pollination takes place, should cross - fertilisation not occur. The bud about to open and the young flower whose petals have just expanded are borne on stalks which are strangely curved; and they are thus inverted and pendent. The style is vertical with the stigma, pointing downwards. The filaments are S-shaped, and hold the anthers, which are of the pepper-castor type, with the two pores invariably upper-most, so that the pollen does not fall out of itself, or at any rate cannot come upon the stigma. Insects approaching from below brush first against the stigma, and directly afterwards against the anthers, which are in consequence upset and besprinkle the intruders with pollen. This pollen is then carried to other flowers of Moneses, where it is retained by the viscid stigmas and fertilises the ovules. During the period of bloom two changes are effected, which, though very striking in themselves, are yet of extreme importance with a view to autogamy. In the last stage of the flower the curve of the pedicel no longer amounts to a semicircle, and consequently the flower is no longer absolutely pendulous, only facing obliquely down; the style is no longer vertical, but with this new position of the flower, points also obliquely downwards, and the stigma is thus brought underneath some of the anthers. The filaments are still curved in the shape of the letter S, but in the opposite direction to that held by them at the commencement of the flowering period; the anthers are therefore inverted, and have their faces directly downwards. The least shaking of the slender stem is now sufficient to cause a fall of pollen, with which the viscid stigma cannot fail to get sprinkled. In July the buds for the succeeding year's flowers are noticeable at the extremity of the shoots. So ready do they appear that one would scarcely believe that twelve months or so will elapse before they open. The leaves are quite glabrous, spatulate, with obtuse apices. They are somewhat thin in texture, and suggest those of a shrub. The small cauline ones are scooped, and serve as water receptacles.



Of far more frequent occurrence in Scotland is *Linnaea borealis*



KINDROGAN COURSES 2004
Kindrogan Field Centre, Enochdhu, Blairgowrie, PH10 7PG
Tel.: 01250 870 150
e-mail: kindrogan@btinternet.com
Web: www.field-studies-council.org

Lichen Identification	Sandy & Brian Coppins	29 March - 2 April	£250
Lichens	Sandy & Brian Coppins	3rd-10 April	£350
Spring Highland Moths	David Brown	5-10 April	£265
Spring Birds	Russell Nisbet	16-18 April	£120
Biological Recording (Intermed.)	Sarah Whild	19-22 April	£200
Highland Family Wildlife(6-12 yrs)	Andy & Fay Williams	30 April - 3 May	Various
Mammal Identification Workshop	The Mammals Society	7-9 May	£155
Introduction to Mosses	Gordon Rothero	21-23 May	£130
A Weekend on Bats	John Haddow	21-23 May	£130
Drystone Dyking (Introduction)	Drystone Walling Ass.	21-23 May	£120
Archaeology of Orkney	Robin Noble	22-29 May	£640
Plant Photography	Gordon Rutter	4-6 June	£120
Key Skills in Plant Identification	Robert Callow	4-9 June	£265
Tree Identification (Introduction)	Jerry Dicker	4-6 June	£120
Tree Id. & Ecology (Intermed.)	Jerry Dicker	6-9 June	£190
Orchids of Scotland	Brian Allen	18-20 June	£120
Grass Identification	Judith Allison	22-26 June	£230
Photography in Scottish H'lands	Les Borg	24-28 June	£230
Mountain Flowers in Sc Highlands	Mike Scott	25 June - 2 July	£330
Water Plants	Nick Stewart	3-10 July	£350
Butterflies and Moths	David Brown	13-17 July	£230
Drawing & Painting in Sc. L'dscape	Gordon Highmoor	17-24 July	£330
Highland Family Wildlife(6 -12 yrs)	Andy & Fay Williams	23-26 July	Various
Freshwater Algae	E Shubert & E Cox	24-31 July	£395
Navigation Skills and Hillwalking	Philip Glennie	30 July - 1 August	£130
Identifying Sedges & Rushes	Fred Rumsey	7-13 August	£300
Fern Identification	Heather McHaffie	13-16 August	£190
Castles, Gardens and Distilleries	Andy Williams	14-18 August	£280
Mosses and Liverworts	Martha Newton	14-21 August	£330
Moths in Scotland (IntermedLevel)	Paul Waring	16-20 August	£250
Sphagnum Mosses	Martha Newton	21-25 August	£230
Fungi	Alan Outen	21-28 August	£330
Botanical Illustration in Highlands	Claire & Kery Dalby	21-28 August	£330
Identifying Spiders	Paul Lee	6-10 September	£250
Paranormal Perthshire	Gordon Rutter	17-19 September	£120
Aquatic Invertebrate Id.(Begins)	Brian Morrison	24-26 September	£120
Introduction to Small Mammals	Judi Oates	24-26 September	£120
Survival Skills	Andy Gingell	24-25 September	£120
Working with Natural Dyes	Marianna Lines	24-26 September	£120
Terrestrial Env'tal Biomonitoring	Craig MacAdam	28 Sept - 1 October	£190
How Birds Weather the Weather?	Norman Elkins	1-3 October	£120
Autumn Birds	Russell Nisbet	15-22 September	£330
Capturing the Scottish Landscape	Sue Murdoch	15-22 September	£330
Autumn Landscape Photography	Chris Rowley	15-22 September	£330
Birds for Beginners	Nick Mutch	22-24 September	£120

KINDROGAN BURSARY SCHEME

It might not be generally known that the Society is willing to sponsor individuals who wish to attend a course at Kindrogan but find that the fees are beyond their present finances. This scheme is particularly aimed at members of the Society who are students, unemployed, or retired. Application is by letter to our Secretary, Joanie Fairlie, 14 Relugas Road, Edinburgh. EH9 2ND. All letters will be treated in confidence.

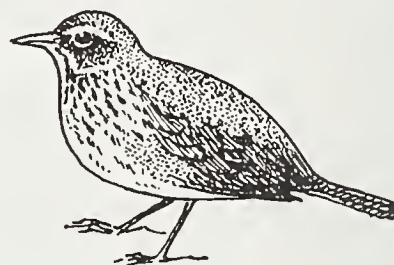


OBSERVATIONS 2003

JANUARY

	Stonechats present in Holyrood Park throughout the winter.	NT
1/1	A male Blackcap at my bird table, Blackford Hill area. It came regularly until 28th February.	MC
4/1	Kingfisher, Duddingston Loch; two Water Rail at Bawsinch.	NT
5/1	Two Ravens displaying and being mobbed by Carrion Crows, Arthur's Seat.	NT
6/1	Raptor on a low branch of a Japanese Cherry tree. Yellow colour obvious on head and beak and rufous on the breast - definitely not a Sparrowhawk. Unfortunately there was not enough time, sharpness of eyesight or expertise to make a positive identification during the short visit. There were many small birds present in the garden at the time. It was thought possibly to have been a Merlin. (Several months later the wing and skull of a kestrel was found in the garden.) Davidson's Mains.	ES
10/1	Green Sandpiper, Bavelaw Marsh.	NT
14/1	Robin singing in Glenogle Road.	CR
18/1	Arctic Skua, Hound Point.	BC
21/1	Raven seen from the col between Capelaw and Allermuir, Pentlands.	MC
23/1	Tree Sparrows, Blackness Castle.	NT
27/1	Mediterranean Gull, Musselburgh.	BC

Redwings on the Meadows Flocks of around 100 seen foraging on the Meadows when I was crossing regularly between mid-January and mid-March. JM



FEBRUARY

7/2	While typing the list of observations for last year's ENHS Journal (!) a Goldcrest was observed making a thorough investigation of a small Spruce tree which was growing in a tub less than 3 feet from the window. Davidson's Mains.	ES
13/2	Little Egret, Vane Farm	NT
14/2	100+ Oystercatchers feeding on Edinburgh Academy field.	CR
	Red-crested Pochard, Linlithgow Loch.	NT
19/2	1 Lesser Black-backed Gull on Edinburgh Academy field.	CR
	1 Redwing on Privet hedge in garden; 1 Fieldfare in Apple tree; a regular visitor all winter - Blackhall.	MR
22/2	Green Sandpiper, Threipmuir Reservoir.	NT
23/2	Pair of Carrion Crow nest-building in Plane trees <i>Platanus hybrida</i> , opposite 35 Comely Bank Road. 2 Juveniles flew.	CR

MARCH

1/3	Humped Back Whale, Hound Point.	BC
7/3	Blackbird - ring number 0525 - singing at 35 Comely Bank Road.	CR
5&12/3	Tree Sparrows at Ormiston.	DA
16/3	Tortoiseshell Butterfly in Blackhall garden.	MR
19/3	Peacock Butterfly at Swanston.	LB, EG, SS
	Male Blackcap seen in Gullane Bents, probably an over-wintering bird rather than a new arrival.	MW
22/3	Water Pipit, Barn's Ness.	BC
23/3	Black Redstart, Torness.	BC

	Chiffchaff in woodland at Alnwick Castle.	MR
24/3	Peregrine flying over Arthur's Seat.	NT
26/3	Peacock Butterfly in my garden, Blackford Hill.	MC
	Peacock Butterfly in Blackhall garden.	MR
27/3	A 7-spot ladybird, 2 queen Bumblebees, a Peacock and a Tortoiseshell Butterfly in Blackhall garden on a day more like May than March: temp. 16C ; reported to be the warmest since 1961.	MR
31/3	Chiffchaffs, Holyrood Park.	NT

APRIL

5/4	Cow Parsley <i>Anthriscus sylvestris</i> in flower in Lauriston Castle grounds.	MR
	3 plants of Yellow Star of Bethlehem <i>Gagea lutea</i> , near Cramond Brig.	DA
	Long-tailed Tit. Davidson's Mains.	ES
6/4	Little Egret, Vane Farm.	BC
8/4	Female Ring Ousel, Crow Hill, Holyrood Park.	NT
12/4	Iceland Gull, Musselburgh.	BC
14/4	A pair of Ring Ousel and 2 pairs of Wheatears, Arthur's Seat.	NT
	Male Orangetip Butterfly in Gullane garden.	MW
15/4	One Swallow seen flying en route to Coldstream.	MR
18/4	Two Swallows and a Sandwich Tern, North Berwick	NT
25/4	Grasshopper Warbler on Hawthorn just north of the Gullane Bents car park.	MW
	First wet day for many weeks.	MR
26/4	Orangetip and Small Tortoiseshell Butterflies; Chiffchaff, Willow Warbler, Water Rail and Blackcap at Bawsinch.	NT

March weather exceptionally dry, warm and sunny. April is the warmest on record since 1874. A remarkable spell of dry, warm sunny weather from February to April. Temperature 26.7 C at Peebles on 17th April. MR

MAY

3/5	Kingfisher on the River Tyne at Haddington, just upstream of Stevenson Bridge.	MW
4/5	3 Swifts, Holyrood Park.	NT
12/5	Male Garganey, Ratho.	BC
	John Muir Country Park, Tynninghame. Small flock of Crossbills seen - 6 birds perched round top of dead tree, joined by 3 or 4 others when they flew off. Probably Scottish Crossbills (the beak in silhouette was very obvious) but not close enough for confident identification.	MW
19/5	Crane at Dowlaw.	BC
21/5	5 am - 5 Swifts over north-west Edinburgh.	MR
31/5	At the southern end of the North Esk Reservoir, a strange beetle with a rhinoceros-like horn was discovered. This turned out to be <i>Sinodendron cylindricum</i> and it is only the male which has the horn (Nats Outing - see Page 34).	JM



*Sinodendron
cylindricum*
'Rhinoceros Beetle'

JUNE

5/6	Bronze Pirri-pirri-bur <i>Acaena anserinifolia</i> on path en route for Carn Mairg, Perthshire,	MC
6/6	Quail calling, Riccarton.	BC
7/6	Hen Harrier in Glen Quaich, Aberfeldy area.	MC
10/6	Pair of Coots nested on a bale of Barley straw (used as a biological counter to a bloom of blue-green alga), on Inverleith Pond. One juvenile fledged. Last seen with parents on 29th July.	CR
27/6	Two Great Spotted Woodpeckers began to patronise bird-feeders and occasionally drink water. They became regular visitors to adjoining gardens throughout the year. Davidson's Mains.	ES

JULY

5/7	Tree Sparrows at Saltoun Home Farm.	DA
6/7	St Cyrus: two plants of Maiden Pink <i>Dianthus deltoides</i> both infected with the Purple Anther Smut <i>Ustilago violacea</i> . We don't know whether it has been recorded on this plant before.	MC, JM
	A wasp captured a moth, neatly removed the abdomen and flew off with it.	MR
10/7	Little Ringed Plover, Musselburgh.	BC
	Goosander with 20 well-developed ducklings on River Tweed at Innerleithen. No other Goosanders about.	E&EP
12/7	Near Luthrie - a Weevil <i>Cionus hortulanus</i> - or a close relative - and some strange grey "balls" on well-chewed Common Figwort <i>Scrophularia nodosa</i> . The latter turned out to be the larvae which are surrounded by a gelatinous secretion. (See Page 52)	JM
19/7	Sand Leeks <i>Allium scorodoprasum</i> on Innerleithen walk.	MR
22/7	Sparrowhawk at bird feeding station in Blackhall garden.	MR
23/7	Grasshopper Warbler, Holyrood Park.	NT
26/7	Sought and found Woodlouse <i>Porcellio spinicornis</i> in Inverleith Park.	CR
27/7	Humming-Bird Hawk-Moth on Knapweed by roadside (A68).	LB

AUGUST

2/8	Ferruginous Duck, Lochgelly.	BC
3/8	Female Greater Horntail emerged from piece of wood brought from Worcestershire.	DA
8/8	Juvenile Coot seen on its own on Inverleith Pond.	CR
9/8	Buzzard flying over the Old Town.	NT
11/8	A Woody Nightshade <i>Solanum dulcamara</i> v. <i>alba</i> . Davidson's Mains.	ES
15/8	Grayling Butterfly - foot of Johnston Terrace.	DA
15/8	Badger near Beecraigs Country park.	NT
16/8	Male Peacock Butterfly found in closed compost bin. The sudden exposure to daylight produced a wonderful display of opening and closing its wings to show its colourful 'eyes'.	EF
16&23/8	<i>Conops quadrifasciata</i> , a wasp-like insect in our garden in Corstorphine.	DA
17/8	Dipper, Braid Burn near Bawsinch.	NT
18/8	Last sighting of juvenile Coot on Inverleith Pond.	CR
22/8	Small Copper Butterfly in Blackhall garden.	MR

OFFICIAL - hottest Scottish summer on record; June, July and August
THE SCOTSMAN Report MR

SEPTEMBER

1/9	A juvenile Coot again on Inverleith Pond.	CR
2/9	St Boswells: further evidence of the Weevil <i>Cionus agg.</i> (see Observation and Report of 12/7/03). There were no weevils or larvae, but the shells of the pupae, on Common Figwort. (See Page 52)	JM
15/9	Grey Squirrel seen in Muirfield House grounds with clearly defined white underparts from chin to tail. A result of cross-mating with one of the all-white squirrels in this area?	MW
18/9	Red Underwing Moth in our house.	E&EP
20/9	Several Painted Lady and Tortoiseshell Butterflies in Blackhall garden. Small flocks of Greylag Geese moving about. Small flock 12 - 20 Swallows on stables roof at Hopetoun House.	MR
22/9	Heavy rain overnight. A hailstorm mid-afternoon.	MR
28/9	Badger in garden, 10.30pm.	MR
30/9	An alien grass <i>Echinochloa crus-galli</i> identified by Douglas McKean - Craighleith shopping centre.	DA

OCTOBER

1/10	Oyster fungus <i>Pleurotus ostreatus</i> on tall dead branches of Rowan (used as garden supports). The fruiting bodies have continued to appear throughout the autumn and winter months. Davidson's Mains.	ES
13/10	Male Snow Bunting in winter plumage, Arthur's Seat.	NT
17/10	Pectoral Sandpiper, Gladhouse reservoir.	BC
17/10	Painted Lady Butterfly sitting on balcony in Trinity.	LB
18/10	Firecrest and Yellow-browed Warbler, St. Abbs.	BC
21/10	Snow on the Pentlands and Sweet Peas in the garden!	MR
22/10	Two male Snow Buntings in winter plumage, and one female, Crow Hill, Holyrood Park.	NT
25/10	Bees' nest in hollow trunk of fallen tree at Yellowcraig. There were still a few very agitated occupants when we saw it. Two of us were stung!	JM,JeM,MC
27/10	Grey Phalarope, Strathclyde Country Park. Tawny owl identified by Jennifer in Rowan tree @ 42 Downie Grove 7pm.	BC JA

In October - several Painted Lady and Red Admiral Butterflies in Blackhall garden
The pond at Hopetoun House has dried out.

Last week October and first week November - flocks of Scandinavian Thrushes raiding the Rowan trees in Blackhall garden.

MR

WEATHER

November reported to be the warmest on record. The dry conditions have made meadow soil impenetrable and hard, the worst conditions for grassland fungi. MR

NOVEMBER

2/11	A form of the Fly Agaric <i>Amanita muscaria</i> v <i>formosa</i> in Ravelston Quarry on small area of grass at the top of the rock face.	ES
12/11	Male Peacock Butterfly within the house; presumed to be from a late hatch which has missed the autumn migration.	EF
15/11	A Peacock Butterfly on the St.Boswell's walk - remarkable for mid-November.	MR
15/11	Desert Wheatear near Crail.	BC
16/11	Two Ravens displaying and being mobbed by Carrion Crows, Arthur's Seat.	NT
16/11	<i>Panellus serotinus</i> on dead wood. This is a kidney shaped brown/green fungus with yellow gills which has a gelatinous layer beneath the cap-cuticle. Ravelston Wood.	ES

22/11	Bullfinches returned to the garden bird feeders.	MR
	A good crop of Blewits <i>Lepista nuda</i> in rough grass and leaf litter at Lauriston Castle.	MR
22&23/11	Up to 10 Waxwings feeding on Hawthorn and Guelder Rose, preening on Sycamore and Willow - seen from 32 Downie Grove, Corstorphine.	DA
26/11	3 Ravens displaying and being mobbed by Carrion Crows, Arthur's Seat.	NT

DECEMBER

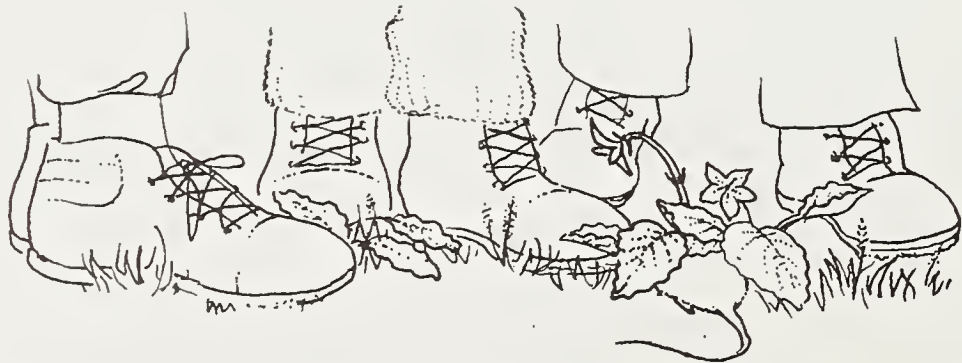
5/12	I found one Earth Tongue <i>Geoglossum cookeinum</i> on the lawn. There were several a few days later, but nothing like the usual number.	MR
13/12	<i>Geastrum rufescens</i> at site of old Pinkhill Station, Corstorphine.	DA
17/12	Pipistrelle Bats - 4 and 8 respectively in two Bat boxes, Vogrie Country Park - very unusual for this time of year, as the Bats should be elsewhere hibernating; this is a reflection of the very mild weather so far this winter.	NT
17/12	A male Blackcap at my bird table.	MC
17/12	Not a bad day for birds in the garden - Treecreepers and Great Spotted Woodpecker. Davidson's Mains.	ES
21/12	Orange Ladybirds - these spotty creatures were collected in ivy for festive decorations from Corstorphine Hill. Six found their way onto the carpet; presumably there were many more.	DA
28/12	50+ Little Auk, Tynninghame.	BC
28/12	A Redwing on a Cotoneaster in a neighbouring garden, Blackford Hill.	MC
25-31/12	Grey Squirrels have built a very solid drey in the Chestnut tree close to the trunk. Most nights a Fox is heard barking in the nearby gardens usually around 3am.	EF

Winter-flowering Honeysuckle and Cherry in full bloom also Aconites and some heathers.
 A winter flowering Rhododendron - *R. dauricum* - is covered in a mass of purple flowers. EF

Fungi are around. A Butter Waxcap *Hygrocybe pratensis* and *Galerina vittaeformis* in the lawn; Coral Spot *Nectria cinnabarina*, on twigs; *Tubaria hiemalis* on the flower beds amongst chippings; Groundsel has the cluster cup rust - *Puccinia lagenophorae*; and some small black blobs on rose leaves are *Phragmidion mucronatum*. EF

No date given - Dead badger on road A904 between Newton and South Queensferry at NT101791 CS

DA	David Adamson	JA	Jennifer Adamson	LB	Lyn Blades
MC	Mary Clarkson	BC	Bill Clunie	EF	Elizabeth Farquharson
EG	Ena Gillespie	JeM	Jean Murray	JM	Jackie Muscott
E&EP	Eileen & Eric Perry	CR	Charles Rawcliffe	MR	Mary Robertson
ES	Eunice Smith	CS	Connie Stewart	SS	Sandra Stewart
NT	Natalie Taylor	MW	Margaret Watson		



This wee mouse got an awful fright as the Nats tramped down the hill to Eathie beach

A Borders Naturalist's Diary for 2003

Jeff Waddell , whose garden is at Ladhope, Galashiels

JANUARY

- 1st Seven Long-tailed Tits on garden nut feeder.
- 19th One Brambling feeding with Chaffinches on fallen nuts below the garden nut feeder.
- 26th Three hundred plus Starlings in a ploughed field at Chirnside.

FEBRUARY

- 7th Two Satellite moths on the sugar post were the first moths seen this year in the garden.
- 16th Mixed flock of two hundred Fieldfare and fifty Redwing at Highcross near Lauder.
- 21st Two Raven were seen in Yair Forest, near Selkirk.

MARCH

- 8th Townhall Clock *Adoxa moschatellina* was seen growing as an epiphyte! About two metres up the trunk of an Alder tree by the Ale Water, near Ancrum.
- 9th The first Common Frog spawn I saw this year in the Ladhope Burn, Galashiels.
- 14th The first butterfly this year was a Small Tortoiseshell at Harestanes Countryside Visitor Centre, near Ancrum.
- 23rd A flock of about 20 Yellowhammer in the thick hedges of Dere Street, Crailing Hall, near Jedburgh.

APRIL

- 5th A beautifully fresh female Emperor Moth was observed by day at Bellitaw, near Greenlaw.
- 9th A single plant of Soft Shield Fern was found whilst visiting a colony of Yellow Star of Bethlehem at Mote Linn near Selkirk. The first, undoubtedly native, record of this fern in Selkirkshire.
- 12th National Moth Night – a moth trapping event was held at Selkirk Hills. The best species attracted to mercury-vapour lights were a Red Sword-grass and several Shoulder Stripes.
- 18th Literally hundreds of plants of Toothwort! Ancient woodland, in the lower valley of the Sprouston Burn, near St Boswells.
- 21st A flock of sixty plus Meadow Pipits was seen feeding on the fairways of Ladhope Golf Course, Galashiels.
- 23rd Two Viviparous Lizards seen in scree slopes by a disused quarry, Slitrig Valley, south of Hawick.
- 30th A Scarce Prominent moth was attracted to mercury-vapour light in my garden.

MAY

- 4th A few plants of Toothwort, parasitising Hazel, Torwoodlee Wood, Galashiels.
- 7th Herb Paris and Rough Horsetail seen in Cleghorn Glen, near Lanark.
- 10th Green Woodpecker heard and then seen by the Kaim Burn, Camptown, south of Jedburgh.
- 13th Herb Paris refound after being thought to have gone extinct at Mossburnford, near Jedburgh.
- 14th Viviparous Lizard seen by the Carewoodrig Burn, Dumfriesshire.
- 15th Eighty-three flowering spikes of Early Purple Orchid counted at Selkirk Hills.
- 16th A Wood Mouse was caught in a mouse-trap in my house.
- 17th A Scarce Tissue moth was attracted to my porch light for the second year running. This is a rare moth in Scotland, which feeds on various species of Barberry, including garden species.
- 21st Several Grasshopper Warblers heard calling whilst moth trapping at Spottiswoode, near Lauder. Ironically the local SWT and RSPB had just been here on a field meeting and hadn't heard any! They must call more after dark. Serves them right for going home early and not staying for the moth trapping!
- 23rd A single Small Copper butterfly seen on Broad Law, near Ancrum.
- 26th Cuckoo calling on the Eildons, near Melrose.
- 28th Scorched Wing moth at garden moth trap. It looks like a bit of burnt paper, hence the name, and is excellently camouflaged, like Silver Birch bark, one of its food plants.
- 30th Globe Flower in an area fenced off by the Borders Forest Trust for native woodland regeneration, Quave Burn, Yarrow Valley.

JUNE

- 4th A Sandy Carpet moth caught at moth trap, Lindean Mill, Selkirk.
- 5th Viviparous Lizard seen in wet heathland by Fingland Burn, near Innerleithen. Seems to have been a good year for them, I have seen them in several sites.
- 6th Several flowering spikes of Bird's-nest Orchid growing through dense leaf litter, in ancient woodland, Mossburnford, near Jedburgh.
- 9th Large colonies of both Aspen and Wood Club-rush along Oxnam Water, Jedburgh.
- 11th Two plants of Forked Spleenwort seen on Minto Crags.
- 14th A Dingy Shell moth was caught in a net at Gordon Moss, a rare moth in Scotland that feeds on Alder.
- 18th Several Daubentons Bats were seen flying over the Yarrow Water at Generals Bridge, Bowhill, nr Selkirk.
- 20th Several males of the nationally rare Dew Moth in a small swarm on the flowery cliff tops nr Eycmouth. A large flock of over five hundred Starlings roosting at Selkirk Hills at dusk.
- 21st One individual of the Netted Pug moth arrived in my garden moth trap at Galashiels. This feeds on the ripening seed-pods of Bladder Campion and Sea Campion.



EP
FORKED SPLEENWORT

- 22nd Many Northern Brown Argus and a couple of Dark Green Fritillaries were seen on a Butterfly conservation Field trip to Gatchope, near Innerleithen. The uncommon Crested Hair-grass was also seen in calcareous grassland, this species has only been recorded in three sites, including this one, in Selkirkshire.
- 25th One spike of Fragrant Orchid and a solitary Northern Brown Argus on a beautiful bank of calcareous grassland at Divoty Plantation, near Hawick.

JULY

- 5th Two Narrow-bordered Five-spot Burnet moths mating, Ladhope, Galashiels.
- 6th On Butterfly Conservation Field Trip - ten Small Pearl-bordered Fritillaries and a Large Heath on Raised Bog at Toxside. Both were new colonies to the previously known ones nearby.
- 8th A Slow-worm sliding over heathland at Crosslee Rig, Upper Ettrick.
- 10th Spotted Flycatcher with young in garden.
- 12th An Adder basking on scree at the Glengaber Burn, Yarrow Valley.
- 13th Two Large Heath Butterflies on Dogden Moss near Greenlaw.
- 14th Many Graylings and Northern Brown Argus Butterflies at St Abbs Head.
- 15th Two Garden Tiger moths resting exposed on reeds during day at Blackpool Moss, near Selkirk.
- 20th On Butterfly Conservation field trip to Cragbank near Bonchester Bridge - Betony, Common Rockrose, Northern Brown Argus, Adder, Viviparous Lizard, Pied Flycatcher and Merlin.
- 22nd Peregrine calling over Galashiels, probably the ones that nest on the church tower here.
- 24th Dotted Carpet, Blue-bordered Carpet and Slender Brindle moths were caught at mercury-vapour light moth traps, at Flora Wood, near Innerleithen.
- 25th Small Copper nectaring on flowers in garden. It appears to have been a good year for this species in the Borders, probably due to the exceptionally warm and dry weather.
- 30th Two flowering stems of Heath Cudweed, growing in amongst Trailing St John's-wort on an unsurfaced forestry track, The Moor, near Ancrum.
- 31st Northern Rustic and Beech-green Carpet moths at mercury-vapour lights at Carrifran, nr Moffat. Satin Beauty, Plain Clay and Slender Brindle Moths at moth traps at Cragbank, near Bonchester Bridge.



A GARDEN TIGER MOTH EP

AUGUST

- 2nd Many Scotch Argus and a few Dark Green Fritillaries seen at Murder Moss, near Selkirk.
- 3rd Two rare plants of fluctuating pond edges: Lesser Marshwort and Floating Club-rush seen in a pond on The Moor, near Ancrum.
- 5th Northern Bedstraw on the crags at Buck Cleuch and an abundance of Scotch Argus Butterflies in the upper Ettrick Valley.
- 7th Large Red Damselfly, Black Darter and Emerald Damselfly at Blind Moss, near Hawick.
- 8th A single Scotch Argus butterfly in the Rough-hope Burn cleuch, Borthwick Valley.
- 14th Black Darter, Emerald Damselfly and Common Hawker at Branxholme Wester Loch, near Hawick.
- 15th One flowering spike of Broad-leaved Helleborine gone to seed on shady ride in mature coniferous plantation, Lambslair Plantation, near Minto.
- 18th Bee honeycomb fragments found at the entrance to a badger set, Roughlee, near Chesters.
- 23rd Dwarf Cornel, Downy Willow and Alpine Meadow-rue on Rough Craigs, Grey Mares Tail, near Moffat.

SEPTEMBER

- 3rd Ten Copper Underwing moths in the moth traps at Harestanes Countryside Visitor Centre, near Ancrum.
- 12th Aspen, Mountain Melick and Beech Fern seen at Gameshope, near Talla Reservoir.
- 13th Two immigrant Dark Sword-grass moths came to a light trap at Carrifran, near Moffat.
- 16th Small amounts of Alpine Meadow-rue in a base rich flush, high on Talla Crags in upland Peebleshire.
- 18th Two Barn Owls in the car headlights at 5 a.m in the morning, Chapelhill, near Hawick.
- 20th Five Large Wainscot and Two Dark Sword-grass in a moth trap at Caverton, near Kelso.
- 24th A solitary, moribund Common Juniper bush in an upland cleuch at South Grain, Chapelhope, near St Marys Loch.
- 25th A Humming-bird Hawk-moth nectaring on Lilac and Red Valerian in the courtyard at Harestanes Countryside Visitor Centre, near Ancrum.

OCTOBER

- 1st A Humming-bird Hawk-moth at Milldown Point, near Coldingham.
- 14th A wild Barn Owl hovering 20ft above my head (no exaggeration!) whilst hunting on rough grassland at the edge of forestry, Ladhope Moor, Galashiels.
- 17th One plant of Cowbane seen on the shore of Yetholm Loch, near the bird hide.

NOVEMBER

- 9th About fifty Fieldfares and a separate flock of ten Crossbills, near forestry plantation, Ladhope Moor.
- 10th Two Jays, a few Nuthatches and a Great Spotted Woodpecker at Harestanes Countryside Visitor Centre.
- 15th A very late Peacock Butterfly was seen on the banks of the Tweed, near St Boswells by a group of the Edinburgh Naturalists. It appeared to be nectaring on Ivy Bloom and was caught in a net, but released once everyone had seen it. There was also a report of a Small Tortoiseshell in Lauder the same day!

NEWS from the SCOTTISH SEABIRD CENTRE

2003 was another good year for the SSC. The 5000th membership was taken in June. And what with running an extensive programme of events throughout the year, planning for exciting new developments and finding ways of raising the necessary funding, it was a very busy time for all concerned. The fund-raiser has to find £121,000 a year, just to run the Centre.

The Enhancement Bid to the Millennium Commission towards Anchor Green Improvement, the camera link to St. Kilda and the Discovery Centre Enhancement was successful. The Heritage Lottery Fund gave £50,000 to conserve the ancient St. Andrew's Old Kirk ruins. The Enhancement-matching Fund Appeal to Friends of SSC, run by the Volunteers, raised £8,488.20, roughly one-sixth of this from ENHS members. A huge thanks to them.

By January discussions were underway on locating a camera on St. Kilda. In July, Tom Brock visited the island to meet interested parties. He was stranded there, and enjoyed it! By October, UNESCO, SNH and NTS approved the project. Western Isles Council wanted more time to consider. A decision is expected by February, 2004.

Plans for a link with the Galapagos are in the pipeline.

In the words of Philip Riddle, Chief Executive of Visit Scotland, "Scottish Seabird Centre at North Berwick is constantly providing something new - it is a good example of continual reinvention".

INTERESTING SIGHTINGS from the SCOTTISH SEABIRD CENTRE DURING 2003

from Mary Tebble

JANUARY

- 2nd 8 Grey Seals hauled out on Craigleith.
- 4th 100+ Knot and 22 Purple Sandpipers, East Bay rocks.
- 5th 4 Ringed Plover on West Bay shore; 1 Guillemot and 2 Razorbills swimming, West Bay;
a Grey Wagtail on SSC roof; 1 Long-tailed Duck in East Bay; 6 Grey Plover, West Bay;
3 Peregrine on Fidra.
- 10th 134 Knot on East Bay rocks; 5 Red-throated Divers, East Bay.
- 17th 2 Gannets - first for 2003 - flew near Bass; 6 Shags with breeding crests, East Bay.
33 Eiders, male and female, in East Bay, males crooning.
- 18th A Robin on pink seawall; 6 Gannets flying around Bass Rock; 22 Grey Seals on
Craigleith lower rocks; 35 Pink-footed Geese flew over.
- 19th 4 Fulmars displaying seen on Fidra camera; 25 Purple Sandpipers on East Bay rock;
1 Long-tailed Duck, East Bay; 7 Red-breasted Mergansers seen through telescopes;
3 Red-throated Divers, East Bay; 1 Peregrine on Fidra.
- 21st 5 Common Scoters, East Bay.
- 23rd Guillemots back on Craigleith Stacks;
Fulmars seeking nesting site; 2 Velvet Scoters flew west.
- 24th 32 Gannet soaring around the north of Craigleith.
- 30th 1 Little Gull flew past Centre, low over wild sea.

FEBRUARY

- 2nd 1 White-billed Diver spotted near Craigleith.
- 3rd 43 Little Auk flew west.
- 5th 2 Golden Plover flew and landed on East Bay rocks; 13 Greylag Geese on the Lamb.
- 8th 99 Shags in West Bay; 6 Long-tailed Ducks in sea west of Bass Rock.
- 13th 6 Gannets seen landing on Bass - first for 2003.
- 16th Sky full of Gannets north of Bass.
- 17th Many Gannets in long lines arriving from the south; spectacular in the sun;
10 Mallards in East Bay.
- 23rd An estimated 75% of the breeding population of Gannets has now arrived
on the Bass. Non-breeders can arrive as late as June - they do not have to look for nest sites!
- 28th 13 Purple Sandpipers on East Bay seaweed.

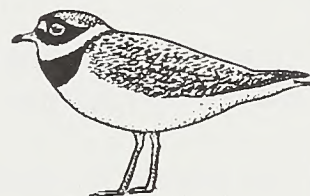
MARCH

- 1st 167 Whooper Swans on field near Drem.
25 Guillemots in a raft on East Bay. Many more on stacks on Isle of May camera.
- 5th A pair of Shags displaying courtship behaviour (see Journal 2002) on Isle of May.
- 8th Gannets flying far from Bass on fishing trips. Some fly as far as Norway;
Hundreds of Guillemots on the Lamb and Fidra stacks.
- 14th 2 Peregrines flew over Centre.
700+ Herring Gulls dotted about on the slopes of Craigleith among the
stalks of Tree Mallow; 8 pairs of Fulmar, East Stack, Craigleith;
2 Lesser Black-backed Gulls on Craigleith.



15th	1 Puffin on sea near Bass Rock - first of 2003.
20th	1 Harbour Porpoise seen in East Bay near cafe.
21st	2 Lesser Black-backed Gulls, East Bay shore; Danish Scurvy Grass in flower on path to SSC.
26th	c75,000 Gannets on Bass Rock; 56 Kittiwakes washing & splashing, Craigleith; 50+ Puffins on Isle of May camera, going and coming back again; 1 Raven - first ever seen on Bass Rock, pecking at a dead Gannet; 1 Peacock Butterfly near SSC. Coltsfoot in flower at far end of East Bay.
29th	1 Great Crested Grebe in winter plumage off Fidra.
30th	2 Siskin flew by; a Yellow Wagtail and Goldfinch flew by.
APRIL	
1st	Many Gannets seen performing ritual behaviour on Bass Rock on camera. 6 Cormorants with white breeding thigh patches on breeding sites on Craigleith; 5 Porpoises sighted over last 2 weeks in bays.
5th	First Sandwich Tern spotted in East Bay.
7th	1550 Herring Gulls seen west of Bass in huge group; 3 Grey Seals on Bass, near helipad; 1 Shag with egg - first seen in 2003 - Isle of May camera. Kittiwakes, Guillemots, Razorbills, Fulmars and Gannets are now all on nesting sites; Puffins come and go, to and from stacks.
12th	2 Sandwich Terns flew near the Centre
13th	1 Whimbrel seen on the Isle of May camera
14th	1 Peregrine seen on Isle of May camera; 3 Shags with eggs seen on Isle of May camera - first of 2003.
16th	1st Gannet egg seen, Bass camera.
MAY	
1st	20,000 Puffin burrows estimate on Craigleith, but the spread of Tree Mallow has inhibited breeding; list of 50 birds seen from SSC, in 8 different languages compiled by volunteers.
3rd	Bird-watching breakfast; 25 species recorded, including House Martin, Swallow and Whimbrel.
8th-15th	1 Grasshopper Warbler heard and seen at east end of East Bay. 70,000 breeding pairs of Puffins estimated, Isle of May. Numbers have doubled in the last 5 years. In 1959 only 3 breeding pairs!
17th	First Eider Duckling in East Bay; 1 Swift seen, East Bay - first for 2003.
19th	2 Arctic Terns spotted.
20th	1 Little Tern seen in far West Bay - first of 2003; 2 Shag chicks on nests on Isle of May, seen clearly on camera; 6 Fulmar pairs on nest sites on East side of Craigleith; 3 Gannets with one egg each, Bass Rock; Swallows numerous along seaweed strand-lines; Blackbird and Thrush songs heard regularly.
24th	First Gannet chick spotted on Bass Rock; many Puffins on Fidra; Shag chick being fed. No! The adult is not about to swallow its chick; the chick has to reach far into the parent's crop to reach his fish supper.
25th	11 Eider Ducklings, East Bay; 1 Kittiwake on East Bay rocks; 5 Sand Martins flew past pink seawall; 1 Common Tern - first of the season; 1 Linnet, East Bay rocks.
29th	2 Minke Whales seen near Isle of May.
JUNE	
2nd	Many Gannets now have eggs; many Puffin burrows contain chicks; Eider Duck with ducklings on her back; 3 of them; Shag chicks getting very big; 20 Bottle-nosed Dolphins seen in Forth during this week.
6th	Puffins: if carrying fish, will have chick to feed; 1 Barnacle Goose flew over.
9th	1 Male Teal on East Bay rocks.
18th	Local Peregrines have fledged their young and have been flying around the Centre.
24th	Razorbill seen on Bass Rock carrying Sand Eel to its chick and feeding it; chick is half the size; Shag chicks as big as their parents now; Guillemot chicks have been coaxed by their parents into the water; seen on Isle of May; one chick seen swimming confidently between the Isle of May and Bass Rock
JULY	
4th	Gannet chicks growing; young Guillemots and fathers setting off to sea off Isle of May; many Puffins about on Isle of May; several Kittiwake chicks spotted; Puffins seen carrying Sand Eels.
5th	3 Eider males in eclipse, East Bay
6th	16 Red-breasted Mergansers - difficult to sex as males are now in eclipse - they all looked similar to females; many Kittiwake chicks; many Guillemots leaving the stacks now; a Grey Seal hauled up on our camera beach, Isle of May.
8th	1 Peregrine chick perished after being pecked in the eye.
12th	200+ Gannets fishing and diving near the moored boats in the West Bay; shoal of fish there?
14th	1 Whimbrel on rocks near East Bay shore. The Lamb <u>covered</u> with seabirds. West and East Bays holding many birds now.
19th	50+ Sandwich Terns - one feeding a chick.
21st	2 Knot in summer plumage, East Bay rocks; 1 Arctic Skua (dark Morph) over Centre.

24th	A Common Seal on Isle of May. A Stoat on rocks beneath viewing deck, mobbed by a Pied Wagtail; 1 Puffling stranded in High Street, North Berwick - brought to SSC. 1 Wheatear, West Bay.
26th	33 Red-breasted Mergansers in West Bay.
27th	24 Golden Plover, far West Bay.
AUGUST	
1st	19 Ringed Plover far East Bay.
2nd	25-30 Puffins in water south of Craigleith.
7th	Puffins gone from the Islands.
8th	100,000 Gannets on Bass - with chicks.
14th	4 Purple Sandpipers on East Bay rocks. There are downy young and 3-month old Gannets on the Bass Rock now; Shags, Fulmars and Grey Seals off the Isle of May.
29th	10 Velvet Scoters swimming, West Bay
30th	1 Guga (dark young Gannet) on sea, East Bay. 35 Sandwich Terns in East and West Bays
SEPTEMBER	
1st	9 Swallows, far West Bay and beach; a Siskin on bird feeder with 42 House Sparrows.
5th	6 Red Admiral Butterflies fluttered by the viewing deck.
18th	Young Gannets practising their wing beats ready for takeoff.
OCTOBER	
1st	1 very fluffy Gannet still on Bass; 1 Heron on office roof; 3 Grey Seal females swimming near Isle of May beach; a Blue Tit on pink seawall.
7th	First Seal pup born, seen on Isle of May camera.
8th	1 Bonxie flew over East Bay.
13th	1 Red-throated Diver, East Bay; a Robin seen on Isle of May.
14th	1 Whimbrel fed on rocks, East Bay.
23rd	50-60 Grey Seals with pups on Isle of May shore; 2 Gannets only, on Bass Rock. 1 Bottle-nosed Dolphin, East Bay
NOVEMBER	
1st	1 Guga still on Bass; a Greylag on Fidra.
2nd	Last Gannet left; 10 Purple Sandpipers on East Bay rocks.
5th	1 Waxwing on Anchor Green seen from office; 140 Seal pups, Isle of May; Seals starting to mate.
6th	A Puffin in winter plumage, East Bay; 32 Lapwings + 62 Golden Plover, East Bay; 150 Grey Seal pups on Isle of May shore called Pilgrims Haven.
15th	A Little Auk in sea near Bass Rock seen from telescope deck; 2 Grey Plovers, East Bay.
22nd	60 Purple Sandpipers roosting on far West Bay rock; a Greylag on Fidra.
23rd	A Puffin swimming near Craigleith.
24th	29 Knot on East bay rocks.
26th	A male Chaffinch at front door of Centre.
26th & 28th	A Black-throated Diver in East Bay.
29th	3 Greylags on Fidra; 25 Grey Seal pups on Pilgrims Haven.
DECEMBER	
	Many Fulmar chicks died from heat exhaustion this year. Shags have produced just under 2 chicks per nest - best year for 20 years. Plentiful food supply?
7th	55 Purple Sandpipers, East and West Bays.
14th	4 Greylags on Fidra; 5 Seal pups, Pilgrims Haven.
17th	2 Stonechats, far West Bay.
20th	30 Guillemots on far side of Craigleith, seen from Santa's boat!
23rd	A Grey Seal hauled up on Bass Rock near helipad.
30th	2 Grey Seal pups on Pilgrims Haven.



NB Throughout the year one or two Peregrines have been seen on Fidra; they are the stars of the screen. They have a particular ledge which they use regularly most days.

MOST UNUSUAL

On a winter walk - on 7th January - George McDougall reports having seen a most unusual spectacle - Cream-spot Ladybirds on the wooden bollards on the path up from the old Colinton Station to the bridge. There were groups on several bollards and he counted 37 on one, so there must have been over 100 in all. His walking companion thought, seeing them from a distance, that they were lumps of chewing-gum!

SOCIETY EQUIPMENT

In addition to books held in the Library, the Society has various other items which can be borrowed by members for their private use, including LP records of birdsong with accompanying booklet, and a recording of Grasshoppers.

Needless to say, members will be responsible for the care of books and equipment on loan.

Telescope:	A Bushnell Spacemaster of 20x - 40x magnification, in carrying case and a car window-mount for in-car use. Apply to Molly Woolgar (Tel: 0131 667 2688)
Microscopes:	High and low power microscopes. Apply to Margaret Perry (Tel. 0131 447 3515)
pH Meter:	Apply to Elizabeth Farquharson (Tel. 0131 447 1994)
Mammal Traps:	Twenty-four small-mammal traps. Apply to Elizabeth Farquharson (Tel: 0131 447 1994)
Photographic slides:	A comprehensive slide collection left to the Society by Janet Raeburn. The subjects are mostly botanical but also include birds, mammals, butterflies and Scottish scenery. They are kept in the Library.
Bawsinch Key:	The Bawsinch Nature Reserve at Duddingston is managed by the SWT, who allow the Society to hold a key for members. Apply to Joanie Fairlie, Secretary Tel: 0131 668 1470
Computer Scanner:	Apply to Sandra Stewart (Tel: 0131 441 2641)
Overhead Projector:	Apply to Betty Smith (Tel: 0131 440 0888)
Slide Projector:	Apply to Elizabeth Farquharson (Tel. 0131 447 1994)

ACKNOWLEDGEMENTS

The Journal Editors thank all the contributors for producing such a variety of articles. Special thanks go to Eric Perry and Jackie Muscott for producing all the lovely drawings. The Journal Committee do a sterling job checking the proofs. Many thanks to them.

Charles Rawcliffe has retired from the Journal Committee after 25 years loyal service. We thank him for his meticulous care in checking grammar and natural history.

The deadline for contributions to next year's Journal, of articles and summer excursion reports, is the 31st October 2004, but if you have any ideas NOW, please let us have them as soon as inspiration strikes. If you see or find anything unusual, please let us know right away, for next year's Observations.

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PLEASE TIE BACK YOUR STAYS



We saw this notice at Rosemarkie. We weren't wearing our stays at the time!

